

No. 1

4 JANUARY 2003



UNITED STATES OF AMERICA

NOTICE TO MARINERS



Published Weekly by the National Imagery and Mapping Agency

Prepared Jointly with the National Ocean Service and U.S. Coast Guard

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Visit the Maritime Safety Information Division website at

http://pollux.nss.nima.mil/



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IMPORTANT INFORMATION

The Notice to Mariners is published by the National Imagery and Mapping Agency (NIMA), under the authority of Department of Defense Directive 5105.40, to advise mariners of important matters affecting navigational safety, including new hydrographic discoveries, changes in channels and navigational aids, etc. (U.S. Code Title 10, Sec. 442 and Title 44, Sec. 1336 refer). Nothing in the arrangement of information implies endorsement or acceptance by NIMA in matters affecting the status and boundaries of States and territories. The Notice to Mariners presents corrective information affecting charts, NIMA Hydrographic Products Catalog, Coast Pilots, Sailing Directions, Fleet Guides, USCG Light Lists, NIMA List of Lights, Radio Navigational Aids and other products produced by the National Imagery and Mapping Agency, National Ocean Service and U.S. Coast Guard.

Information for the Notice to Mariners is contributed by the following Agencies: National Imagery and Mapping Agency (NIMA) (Department of Defense) for waters outside the territorial limits of the United States; National Ocean Service (NOS) (Department of Commerce), which is charged with the surveys and charting of the coasts and harbors of the United States and its territories; the U.S. Coast Guard (USCG) (Department of Transportation), which is responsible for the safety of life at sea and the establishment and operation of aids to navigation; and the U.S. Army Corps of Engineers (Department of Defense), which is charged with the improvement of rivers and harbors of the United States. In addition, important contributions are made by foreign hydrographic offices and cooperating observers of all nationalities.

For further information concerning NIMA hydrographic products and services, including the Maritime Safety Information Website, users may contact:

Name	<u>Telephone</u>	<u>DSN</u>	<u>FAX</u>
Maritime Safety Information Division	301-227-5006	287-5006	301-227-5745
World-Wide Navigational Warning Service	301-227-3147	287-3147	301-227-3731
Fleet Liaison Officer	301-227-3120	287-3120	301-227-4211
Maritime Safety Information Website	301-227-3296	287-3296	301-227-4211
Notice to Mariners: Regions 1 and 2	301-227-3122	287-3122	301-227-3175
Notice to Mariners: Regions 3, 4, 5	301-227-3146	287-3146	301-227-3175
Notice to Mariners: Regions 6 thru 9	301-227-3146	287-3146	301-227-3175
Sailing Directions, Fleet Guides	301-227-3183	287-3183	301-227-3174
Navigation Science Publications	301-227-3120	287-3120	301-227-3731
Distribution Issues	301-227-7652	287-7652	301-227-4211

The Maritime Safety Information Website can be accessed via the NIMA Homepage (www.nima.mil) under the Safety of Navigation link or directly at (http://pollux.nss.nima.mil). For your convenience NIMA provides three e-mail addresses. For information affecting Notice to Mariners use NavNotices@nima.mil, for information affecting Sailing Directions and all other navigational publications use SDPUBS@nima.mil, for information concerning the Maritime Safety Information Website, use webmaster_nss@nima.mil.

Mariners are requested to notify NIMA of discrepancies in charts and publications, using the Marine Information Report and Suggestion Sheet at the back of this Notice to Mariners. This form should also be used to report permanent changes, additions, or deletions from charted or published information. Reports which constitute an immediate hazard to navigation should be sent to the nearest NAVAREA Coordinator via coast radio stations. All reports are greatly appreciated.

Cover Photo: Serving our nation proudly since her commissioning on June 3rd, 1978 the USS BRISCOE (DD-977) is the fifteenth destroyer in a series of thirty-one *SPRUANCE* class destroyers. Built by the Ingalls Shipbuilding Division of Litton Industries in Pascagoula, MS, she bears the name of Admiral Robert P. Briscoe, USN, who served with distinction during WWI, WWII and the Korean Conflict. The *SPRUANCE* class destroyers were developed for the primary mission of antisubmarine warfare, including operations as an integral part of attack carrier forces. Utilizing highly developed weapons systems, the BRISCOE can hunt down and destroy high speed submarines in all weather, but can also engage ships, aircraft and shore targets. As a multi-purpose combatant, the BRISCOE is capable of providing naval gunfire support in conjunction with Marine amphibious operations worldwide. At 564 feet in length and a beam of 55 feet, she is twice as large as a WWII destroyer and as large as a WWII cruiser. The BRISCOE's formidable armament includes two 5-inch/54 caliber lightweight guns, one MK-41 VLS for Tomahawk cruise missiles, MK-46 torpedoes, Harpoon missile launchers, one Sea Sparrow launcher, one Rolling Airframe Missile System and two 20mm Phalanx CIWS. The BRISCOE's 80,000 SHP and twin controllable-pitch screws can propel her to 30+ knots. A high degree of automation permits a reduced crew of 352 Sailors and 30 Officers. The homeport of the USS BRISCOE is Norfolk, Virginia.



HYDROGRAM

National Imagery and Mapping Agency Bethesda, MD 20816-5003



4 January 2003

IMPORTANT INFORMATION

THIS NOTICE CONTAINS A VARIETY OF SUBJECTS AMPLIFYING INFORMATION NOT USUALLY FOUND ON CHARTS OR IN NAVIGATIONAL PUBLICATIONS. PARAGRAPHS 1 THRU 63 ARE "SPECIAL NOTICE TO MARINERS PARAGRAPHS" WHICH ARE PROMULGATED ONCE EACH YEAR IN THE INTEREST OF SAFE NAVIGATION. SEE SECTION I. ADDITIONAL ITEMS CONSIDERED OF INTEREST TO THE MARINER WILL BE FOUND IN SECTION III OF THIS NOTICE.

NEW EDITION OF COAST PILOT

U.S. COAST PILOT 7, PACIFIC COAST: CALIFORNIA, OREGON, WASHINGTON AND HAWAII, THIRTY-FOURTH EDITION 2002, IS READY FOR ISSUE. SEE SECTIONS II AND III.

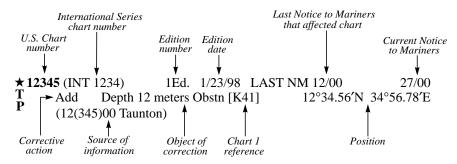
NEW EDITION OF NIMA/DLA HYDROGRAPHIC CATALOG

THE TWELFTH EDITION OF THE NIMA/DLA CATALOG, PART 2-VOLUME I, HYDROGRAPHIC PRODUCTS, NAUTICAL CHARTS AND PUBLICATIONS IS NOW AVAILABLE. SEE SECTIONS II AND III.

EXPLANATION OF CONTENTS

The Notice to Mariners contains corrective information affecting nautical charts, the NIMA Hydrographic Products Catalog, Coast Pilots, Sailing Directions, Fleet Guides, USCG Light Lists, NIMA List of Lights, Radio Navigational Aids and other related nautical publications. The information contained in these corrections is important to safe navigation. It is the user's responsibility to decide which of their charts and publications require correction. Consult the U.S. Coast Guard Local Notice to Mariners for information pertaining to waterways within the United States that are not normally used by oceangoing vessels. Because of the sometimes transitory nature of aids to navigation, depths and port information, local area sources should be consulted whenever possible. This publication is not required to be maintained intact. Portions may be separated for correction or attachment to an affected product. The Notice to Mariners is divided into the following sections:

Section I-1 contains corrections to nautical charts listed in numeric order by chart number. Each chart correction listed applies only to that particular chart. Related charts, if any, will have their own specific correction listed separately. Users should also refer to U.S. Chart 1 Nautical Chart Symbols, Abbreviations and Terms for additional information pertaining to the correcting of charts. The illustration below describes the elements that comprise a typical chart correction:



A chart correction preceded by:

★ indicates that it is based upon original U.S. source information.

T indicates that it is temporary in nature.

P indicates that it is preliminary, and that permanent corrective action will appear in a future Notice to Mariners.

The letter **M** immediately following the chart number indicates that the correction should be applied to the metric side of the chart only. The letter **M** is not a part of the chart number.

The letter $\check{\mathbf{N}}$ preceding the current Notice to Mariners number indicates that the affected chart is on Limited Distribution and is normally only for use by U.S. Navy, government-owned or -chartered vessels.

Courses and bearings are given in degrees true.

Light sectors are expressed in degrees true from the vessel TOWARD the light.

The visible range(s) listed for lights is normally the nominal range (the distance at which it can be seen in clear weather), expressed in nautical miles, except in the Great Lakes where it is expressed in statute miles.

The colors of structures and lights of navigational aids are abbreviated in accordance with Chart 1.

Section I-2* contains all chartlets, depth tabulations and notes associated with the chart corrections in Section I-1. Chartlets and depth tabulations supersede all previous information portrayed.

Section I-3 lists all NIMA and NOS charts which have been affected by Notice to Mariners and the notice numbers which have affected them since the date of the oldest Summary of Corrections or the chart's announcement, whichever is later.

Section II-1 is a weekly listing of corrections to the NIMA Hydrographic Products Catalog, including new charts and publications. It also contains the latest price category information.

Section II-2* contains corrections to navigation publications, including Sailing Directions, Coast Pilots, Fleet Guides, Radio Navigational Aids (Pub. 117), *The American Practical Navigator* and other related nautical publications.

Section II-3* lists weekly updates to the USCG Light Lists.

Section II-4* lists weekly updates to the NIMA List of Lights.

Section II-5 lists all NIMA, NOS and USCG navigation publications which have been affected by Notice to Mariners and the notice numbers which have affected them since the date of the publication's announcement.

Section III-1 lists the message number of all in-force Navigational Warnings, and the text of those warnings promulgated during the previous week. Notice to Mariners Nos. 13, 26 and 39 list a summary of all in-force Navigational Warnings for the preceding quarter. Notice to Mariners No. 52 lists a complete summary of all in-force Navigational Warnings.

Section III-2 contains miscellaneous information of particular interest to the maritime community.

^{*}The left-hand pages of these sections are intentionally blank.

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^{*} Denotes significant change

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^{*} Denotes significant change

(1) THE PRUDENT MARINER.

a. Warning On Use Of Floating Aids To Navigation and on Aids to Navigation in General and Fixing a Navigational Position.

The aids to navigation depicted on charts comprise a system consisting of fixed and floating aids with varying degrees of reliability. Therefore, prudent mariners will not rely solely on any single aid to navigation, particularly a floating aid. An aid to navigation also refers to any device or structure external to a craft, designed to assist in determination of position. This includes celestial, terrestrial, and electronic means, such as Global Positioning System (GPS) and Differential GPS (DGPS). Here, too, the prudent mariner will not rely solely on any single aid to navigation.

The buoy symbol is used to indicate the approximate position of the buoy body and the sinker which secures the buoy to the seabed. The approximate position is used because of practical limitations in positioning and maintaining buoys and their sinkers in precise geographical locations. These limitations include, but are not limited to, inherent imprecisions in position fixing methods, prevailing atmospheric and sea conditions, the slope of and the material making up the seabed, the fact that buoys are moored to sinkers by varying lengths of chain, and the fact that buoy and/or sinker positions are not under continuous surveillance but are normally checked only during periodic maintenance visits which often occur more than a year apart. The position of the buoy body can be expected to shift inside and outside the charting symbol due to the forces of nature. The mariner is also cautioned that buoys are liable to be carried away, shifted, capsized, sunk, etc. Lighted buoys may be extinguished or sound signals may not function as the result of ice or other natural causes, collisions, or other accidents. Many of these factors also apply to articulated lights.

For the foregoing reasons, a prudent mariner must not rely completely upon the position or operation of floating aids to navigation, but will also utilize bearings from fixed objects and aids to navigation on shore. Further, a vessel attempting to pass close aboard always risks collision with a yawing buoy or with the obstruction the buoy marks.

b. Use of Foreign Charts.

In the interest of safe navigation, caution should be exercised in the use of foreign charts not maintained through U.S. Notice to Mariners.

Foreign produced charts are occasionally mentioned in NIMA Sailing Directions when such charts may be of a better scale than U.S. produced charts. Mariners are advised that if or when such foreign charts are used for navigation it is their responsibility to maintain those charts from the Notice to Mariners of the foreign country producing the charts.

The mariner is warned that the buoyage systems, shapes, colors, and light rhythms used by other countries often have a different significance than the U.S. system.

Mariners are further warned about plotting positions, especially satellite-derived positions such as from GPS, onto foreign charts where the datum is unknown or the conversion from WGS-84 is unknown.

c. Chart Notes Regarding Different Datums.

Particular caution should be exercised during a passage when transferring the navigational plot to an adjacent chart upon a different geodetic datum or when transferring positions from one chart to another chart of the same area which is based upon a different datum. The transfer of positions should be done by bearings and distances from common features.

Notes on charts should be read with care, as they give important information not graphically presented. Notes in connection with the chart title include the horizontal geodetic datum which serves as a reference for the values of the latitude and longitude of any point or object on the chart. The latitudes and longitudes of the same points or objects on a second chart of the same area which is based upon a different datum will differ from those of the first chart. The difference may be navigationally significant. Additionally, datum changes between chart editions could significantly affect the positions of navigational aids found in the List of Lights and other NIMA publications.

Positions obtained from satellite navigation systems, such as from GPS, are normally referred to the World Geodetic System 1984 (WGS-84) Datum. The differences between GPS satellite-derived positions and positions on some foreign charts cannot be determined: mariners are warned that these differences MAY BE SIGNIFICANT TO NAVIGATION and are therefore advised to use alternative sources of positional information, particularly when closing the shore or navigating in the vicinity of dangers.

(Repetition NTM 1(1)02) (NIMA/PTNM)

(2) NAUTICAL CHART SYMBOLS AND ABBREVIATIONS INFORMATION.

Symbols and abbreviations approved for use on all regular nautical charts published by the National Imagery and Mapping Agency and the National Ocean Service are contained in the November 1997 edition of Chart No. 1, United States of America

(2) NAUTICAL CHART SYMBOLS AND ABBREVIATIONS INFORMATION. (Continued).

Nautical Chart Symbols, Abbreviations and Terms. This publication is available from the National Imagery and Mapping Agency and the National Ocean Service NOAA, and its sales agents and can be found on the NIMA website. The introduction to this publication includes a number of paragraphs on metric and fathom charts, soundings, drying heights, shorelines, landmarks, buoys, IALA buoyage, heights, conversion scales, traffic separation schemes, and correction dates.

Buoys and Beacons of the IALA Buoyage System Regions A and B are illustrated in the back of Chart No. 1, including light characteristics in full color.

The various sections comprising the Table of Contents follow the sequence presented in The International Hydrographic Organization (IHO) Chart 1 (INT1); therefore, the numbering system in this publication follows the standard format approved and adopted by the IHO. Where appropriate, each page lists separately the current preferred U.S. symbols shown on charts of the National Ocean Service (NOS) and NIMA. Also shown in separate columns are the IHO symbols and symbols used on foreign charts reproduced by NIMA.

(Repetition NTM 1(2)02) (NIMA/PTNM)

(3) USE OF THE METRIC SYSTEM ON NIMA PRODUCTS.

The National Imagery and Mapping Agency (NIMA) is continuing the program to convert the depths and heights on nautical charts and in publications to the metric system. Although many facsimile reproductions of foreign charts have shown depths and heights in meters for several years, the NIMA originated charts began to show depths and heights in meters instead of fathoms and/or feet in January 1970. Depths are shown in meters (usually in meters and decimeters to 21 meters) and boldly stated in the chart title and in purple colored type in the outer chart borders. A conversion table from meters and decimeters to fathoms and feet is also carried on each chart.

List of Lights, Radio Aids and Fog Signals and Sailing Directions, as they are reformatted, will adopt the Metric Measurement System as feasible.

(Supersedes NTM 1(3)02) (NIMA/PTNM)

(4) GEOGRAPHIC NAMES USAGE FOR NIMA PRODUCTS.

AUTHORITIES (IALA) MARITIME BUOYAGE SYSTEM.

Wherever possible, names used on NIMA charts and in NIMA publications are in the form approved by the United States Board on Geographic Names. Generally, local official spellings are used for those features entirely within a single sovereignty, while names of countries and those features which are common to two or more countries or which lie beyond single sovereignty carry Board-approved conventional spellings (i.e. names in common English language usage). When alternate names would be of value to the user, they may be shown for information purposes within parentheses. Important individual name changes are made to all revised charts as the opportunity permits. Geographic names or their spellings do not necessarily reflect recognition of the political status of an area by the United States Government.

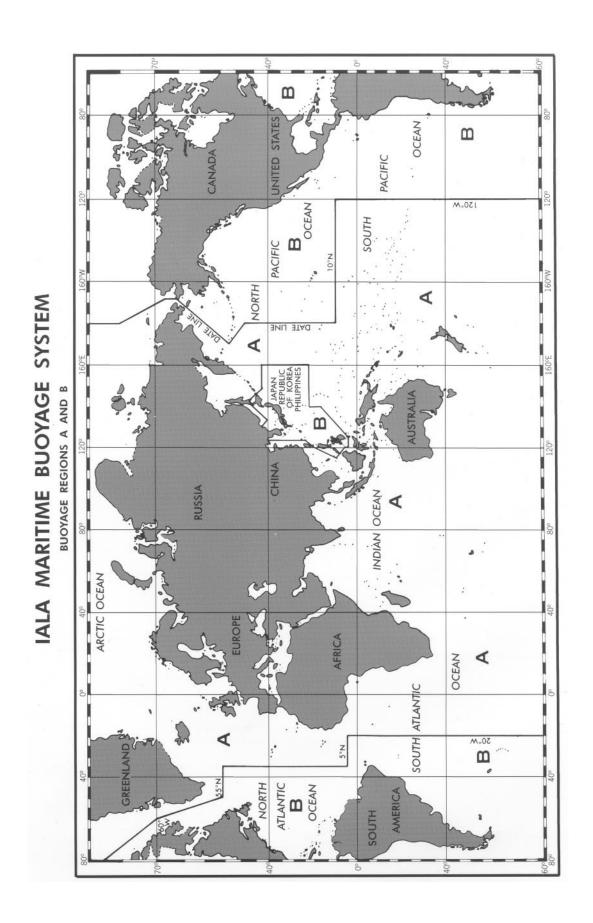
(Supersedes NTM 1(4)02)

(5) INTERNATIONAL ASSOCIATION OF MARINE AIDS TO NAVIGATION AND LIGHTHOUSE

The IALA Maritime (combined Cardinal/Lateral) Buoyage System has been implemented by nearly every maritime jurisdiction worldwide as either REGION A (red to port) or REGION B (red to starboard). The actual conversion began in 1977 and for most areas, is completed.

The terms "REGION A" and "REGION B" are used to determine which type of buoyage region is in effect. The major difference between the two buoyage regions is the lateral marks. When viewed from sea, the lateral marks in REGION A will be red to port; in REGION B they will be red to starboard. Shapes of lateral marks will be the same in both REGIONS, can to port; cone (nun) to starboard. Cardinal and other marks continue to follow current guidelines and may be found in both REGIONS. A modified lateral mark, indicating the preferred channel where a channel divides, is in place for use in both REGIONS. Each chart reflects a REGION A or REGION B note to indicate which type of lateral buoyage is in use. A graphic illustration showing the approximate REGION A and B limits can be found on the following page.

(Repetition NTM 1(5)02) (NIMA/PTNM)



(6) INTERNATIONAL ICE PATROL SERVICE.

Between the months of February and August, the International Ice Patrol (IIP) conducts its annual mission of defining the limits of iceberg distribution in the northwest Atlantic and providing iceberg warnings to mariners. IIP determines iceberg distribution using iceberg sighting reports filed by ships and planes crossing the area. It also regularly conducts ice reconnaissance patrols to monitor the region of the Grand Banks of Newfoundland and define the southern, southeastern and southwestern limits of iceberg distribution in this dangerous region. Ice Patrol Bulletins for 0000Z and 1200Z daily Ice Limits are broadcast via Voice, SITOR (RATT), NAVTEX and Inmarsat-C SafetyNET. There is also a daily 1200Z Ice Limit Radiofacsimile Chart that is both broadcast and available through the Internet. Details are contained in Chapter 3 of Radio Navigational Aids, Pub. 117.

All shipping is requested to assist in the operation of the International Ice Patrol by reporting all ice sightings. Format and content of ice sighting messages are included in Pub. 117.

(Repetition NTM 1(6)02) (USCG)

(7) SPECIAL WARNINGS (In force 18 December 2002).

SPECIAL WARNING NO. 1.

Navigational warnings broadcast by NIMA are normally divided into categories, HYDROLANTS and HYDROPACS, referring respectively to the Atlantic and Pacific Oceans. It has been determined there now exists a need for disseminating information of general interest not covered by the above categories. Therefore, with this message the Special Warnings series is reintroduced. The messages will be transmitted from all U.S. Navy and Coast Guard Stations broadcasting HYDROS. (May 27, 1948)

SPECIAL WARNING NO. 29.

CUBA.

- 1. Mariners are advised to use extreme caution in transiting the waters surrounding Cuba. Within distances extending in some cases upwards of 20 miles from the Cuban coast, vessels have been stopped and boarded by Cuban authorities. Cuba vigorously enforces a 12-mile territorial sea extending from straight baselines drawn from Cuban coastal points. The effect is that Cuba's claimed territorial sea extends in many cases beyond 12 miles from Cuba's physical coastline.
- 2. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation, or proclamation so published.

(March 1, 1962, updated January 1, 1982, reviewed November 9, 1994)

SPECIAL WARNING NO. 77.

PAPUA NEW GUINEA—BOUGAINVILLE COAST.

- 1. Bougainville Island declared unilateral independence from Papua New Guinea May 17, 1990. The government of Papua New Guinea does not recognize the declaration. Consequently, the political situation may be tense in the future.
- 2. The following Notice to Mariners No. 36/90 issued by the government of Papua New Guinea is quoted in its entirety: Ouote

Overseas vessels are advised to stand clear of the islands of Bougainville and Buka and to remain outside of territorial waters extending 12 nautical miles from the coast of Bougainville and immediately adjacent islands but excluding Solomon Islands Territory, and excluding the groups of islands or atolls known as Feni, Green, Nuguria, Carteret, Mortlock and Tasman. Any vessel entering the waters adjacent to Bougainville or Buka will be subject to stop and search powers. This Notice to Mariners is effective immediately (22nd May 1990 EST) in respect to overseas shipping. Papua New Guinea coastal vessels will be restricted as of midnight local time on 20th May 1990. Restrictions will continue for an indefinite period. Charts affected are BA 214, BA 2766, BA 3419, BA 3420, BA 3830, BA 3994, INT 604 and AUS 4604. Dept. of Transport. Port Moresby. Papua New Guinea.

Unquote

3. U.S. mariners are advised to exercise extreme caution in entering and transiting the waters of Bougainville. (Dept. of State) (25 May 1990)

(7) SPECIAL WARNINGS. (Continued).

SPECIAL WARNING NO. 81.

LIBYA.

1. Due to unsettled relations between the United States Government and the government of Libya, U.S. mariners are advised to exercise caution in transiting the waters of the Gulf of Sidra south of 32-30N. The United States does not maintain an embassy in Libya and cannot ensure the safety of its citizens.

- 2. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation or proclamation so published.
- 3. Cancel Special Warning No. 52.

(Dept. of State) (31 Aug 1990)

SPECIAL WARNING NO. 82.

MOROCCO.

- 1. U.S. mariners are advised to exercise caution within the territorial waters claimed by Morocco. Moroccan coastal protection warships, while engaged in anti-drug smuggling activities or enforcing territorial fishing rights, have been known to open fire on innocent vessels.
- 2. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation or proclamation so published.

(Dept. of State) (31 Aug 1990)

SPECIAL WARNING NO. 89.

WEST COAST OF AFRICA—WESTERN SAHARA.

- 1. Prior to the September 1991 cease-fire between Morocco and the Polisario, unprovoked attacks on shipping off the coast of the Western Sahara by Polisario guerrillas using machine guns, grenades, and mortars occurred, resulting in the loss of life and property.
- 2. Despite the cease-fire, the potential for violent incidents still exists. Mariners are advised to continue using extreme caution and remain well offshore when transiting the waters off the west coast of Africa between 27-40N 013-11W and Cap-Blanc (20-47N 017-03W) and particularly between Dakhla (23-42N 015-56W) and Cape Corbiero (21-48N 016-59W).
- 3. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigation safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation, or proclamation so published.
- 4. Cancel Special Warning No. 69.

(Dept. of State) (16 Oct 1992)

SPECIAL WARNING NO. 92.

LIBERIA.

- 1. Mariners are advised to use caution when sailing near the coast of Liberia.
- 2. The United Nations Security Council has passed Resolution 788 (November 19, 1992), which says that "All states shall, for the purposes of establishing peace and stability in Liberia, immediately implement a general and complete embargo on all deliveries of weapons and military equipment to Liberia until the Security Council decides otherwise." Resolution 788 also "requests all states to respect the measures established by the Economic Community of West African States (ECOWAS) to bring about a peaceful solution to the conflict in Liberia."
- 3. Cancel Special Warning No. 90.

(Dept. of State) (03 Dec 1992, revised 29 Oct 1997)

SPECIAL WARNING NO. 95.

NICARAGUA.

1. Mariners operating small vessels such as yachts and fishing boats should note that Nicaragua has boundary disputes with its neighbors in both its Caribbean and Pacific waters, especially with Honduras, and should exercise caution. There have been cases of foreign-flagged fishing vessels and other vessels being seized off the Nicaraguan coast by Nicaraguan authorities. The government of Nicaragua has adopted a new law that mandates the payment of a fine equal to 200 percent of the value of any boat caught fishing illegally within Nicaragua's Exclusive Economic Zone (EEZ).

(7) SPECIAL WARNINGS. (Continued).

- 2. While in all cases passengers and crew have been released within a period of several weeks, in some cases the ships have been searched, personal gear and navigational equipment have been stolen, and there have been excessive delays in releasing vessels. Prompt U.S. Embassy consular access to detained U.S. citizens on Nicaragua's Caribbean coast may not be possible because of delays in notification due to the relative isolation of the region.
- 3. It should also be noted that there have been incidents of piracy in Caribbean and Pacific waters off the coast of Nicaragua, but the Nicaraguan navy has increased its patrols and no recent incidents have been reported.
- 4. Cancel Special Warning No. 91.

(Dept. of State) (10 Feb 1994, revised 29 Oct 1997)

SPECIAL WARNING NO. 107.

SRI LANKA.

- Sri Lanka has announced that entrance by unauthorized vessels into the waters of Palk Strait and the eastern territorial
 waters of Sri Lanka is prohibited because of increased acts of terrorism against shipping and Sri Lankan Naval Vessels. Sri
 Lanka requires that vessels in the vicinity contact the Sri Lankan Command (Tel. 941-42-30-19, Fax: 941-433-986) for
 authorization if they wish to enter these areas.
- 2. The government also has established a restrictive zone in coastal waters along the west coast from Kalpitiya to Colombo Port's southern backwaters. Written permission from the Sri Lankan Command is required for entry into these waters as well. Sri Lankan authorities have advised that they will fire on violators.
- 3. The U.S. Embassy in Colombo reports that between July and September 1997, at least three foreign flag merchant vessels were attacked by the Liberation Tigers of Tamil Eelam (LTTE). One vessel operating as a passenger ferry off Mannar on the northwest coast was set on fire and sunk. A second vessel departing north from the Jaffna Peninsula was hijacked, stripped of equipment, and its crew temporarily held by the terrorists. One crew member was killed during the hijacking. A third vessel was loading a mineral cargo off the northeast coast near Pulmoddai when it was attacked and at least five members of its crew killed.
- 4. Any anti-shipping activity should be reported to NIMA NAVSAFETY, U.S. State Department, or the nearest U.S. Consulate. Refer to NIMA Pub. 117, Chapter 4, for instructions on filing a Ship Hostile Action Report (SHAR) or Anti-Shipping Activity Message (ASAM).
- 5. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation or proclamation so published.
- 6. Cancel Special Warning No. 94.

(Dept. of State) (01 Dec 1997)

SPECIAL WARNING NO. 108.

SUDAN.

- 1. In January 1996 the Department of State warned all U.S. citizens against travel to Sudan due to ongoing violence within the country. Citing the U.S. Government's suspension of it's diplomatic presence in Sudan, the Department advised that its ability to provide emergency consular services would be severely limited. In August 1998 the State Department again warned U.S. citizens against travel to Sudan "following the recent U.S. air strikes against terrorist facilities and possible threats to Americans and American interests in that country." The latter warning (No. 98-041) remains in effect to date.
- 2. In November 1997 President Clinton issued Executive Order 13067 imposing a U.S. trade embargo against Sudan. Among the prohibited activities are "any transaction by a United States person relating to transportation of cargo to or from Sudan." "United States person" is defined as any U.S. citizen, permanent resident, entity organized under U.S. law, or person in the United States. The embargo is still in effect.
- 3. Notwithstanding the pre-existing travel warning and ongoing U.S. trade embargo, the recent U.S. missile attack on a chemical plant in Khartoum has raised concerns of possible retaliation against U.S. citizens and/or commercial interests. U.S. mariners are therefore urged to avoid Port Sudan or other Sudanese ports. U.S. vessels are also advised to remain well clear of Sudanese territorial waters in the western Red Sea area.

(Dept. of State) (20 October 1998)

SPECIAL WARNING NO. 111

SOMALIA.

1. Due to continuing conditions of armed conflict in Somalia and its territorial waters, mariners are advised to avoid the Port of Mogadishu and remain at least 50 nautical miles distant from the southeast Somali coast. Ships not specifically expected at the ports of Berbera and Bosaso should also avoid approaching the northern Somali coast.

(7) SPECIAL WARNINGS. (Continued).

2. In the past year there have been increasing reports of armed attacks on passing commercial vessels off the coast of Somalia. Fishing vessels, freighters and tankers have been fired upon by small speedboats with conventional weapons and rocket launchers. Ships have been hijacked, cargoes stolen, and crews held for ransom. Formerly confined to the port city of Mogadishu, the attacks have since extended into coastal waters--recent hijackings have occurred as far as 40 miles off shore.

- 3. The Department of State has warned U.S. citizens against all travel to Somalia. Inter-clan and interfactional fighting can flare up with little warning, and kidnapping and other threats to foreigners can occur unpredictably in many regions. There is no national government in Somalia to offer general security or police protection for travelers. While parts of the north are relatively peaceful, including much of the self-declared "Republic of Somaliland," there is no U.S. diplomatic presence in Somalia to provide up-to-date security assessments or consular assistance to U.S. citizens.
- 4. Cancel Special Warning No. 88.

(Dept. of State) (12 May 1999)

SPECIAL WARNING NO. 113.

YEMEN.

- 1. The level of risk for foreigners in Yemen remains high. On 12 October 2000, several U.S. citizens were killed and many more were injured in an incident involving a U.S. Navy ship in the port of Aden, Yemen in what may have been a terrorist attack. An explosion in the morning of 13 October 2000 caused minor damage to the British Embassy in Sanaa, Yemen and no casualties. While U.S. and Yemeni officials are still cooperating closely to determine the cause of the tragic explosion, the investigation has only started. Under these circumstances, U.S. mariners should avoid Yemeni ports for the present.
- 2. In light of this and other recent events, the U.S. Department of State warns U.S. citizens to defer travel to Yemen. U.S. citizens should exercise a very high level of caution and should only travel between cities by air or with an armed escort. They should register with the U.S. Embassy in Sanaa and remain in contact with the Embassy for updated security information at (967) (1) 238-844 through 238-852.

(Dept. of State) (13 October 2000)

SPECIAL WARNING NO. 114.

IRΔN

- 1. Mariners are advised to exercise extreme caution when transiting the waters of the North Persian Gulf.
- 2. Iranian-flag speedboats and patrol craft operating in Iranian and international waters have boarded vessels and demanded payment before the vessels are allowed to proceed.
- 3. Mariners should exercise extreme caution and vigilance when operating in this area, and should obtain and evaluate current warning information broadcasted by the National Imagery and Mapping Agency (NIMA) via HYDROPAC broadcasts.
- 4. Any anti-shipping activity should be reported to NIMA NAVSAFETY Bethesda MD or navsafety@nima.mil via Ship Hostile Action Report (SHAR) procedures (see NIMA Pub. 117-Chapter 4), or directly to the U.S. State Department, or nearest U.S. Embassy or Consulate.
- 5. The publication of this notice is solely for the purpose of advising U.S. mariners of information relevant to navigation safety, and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation, or proclamation so published.
- 6. Cancel Special Warning No. 104.

(Dept. of State) (05 February 2001)

SPECIAL WARNING NO. 115.

PERSIAN GULF.

- 1. In the Persian Gulf, multi-national naval units continue to conduct a maritime operation to intercept the import and export of commodities and products to/from Iraq that are prohibited by UN Security Council Resolutions 661 and 687.
- 2. Vessels transiting the Persian Gulf and Gulf of Oman can expect to be queried and, if bound for or departing from Iraq or the Shatt-al-Arab waterway, also intercepted and boarded. Safe navigation may require vessels to be diverted to a port or anchorage prior to conducting an inspection.
- 3. Maritime interception operations in the Red Sea, Strait of Tiran and Strait of Hormuz have ceased. Cargo bound for Aqaba or transshipment from Aqaba may be inspected on shore according to an agreement worked out by the UN Sanctions Committee and Jordanian authorities.
- 4. Documentation requirements for the naval regime in the Persian Gulf and the shore-based regime in Aqaba are identical and can be found in the most recent HYDRPOACS covering the enforcement of UN sanctions against Iraq.

(7) SPECIAL WARNINGS. (Continued).

- 5. Stowage and other requirements for vessels transiting the Persian Gulf can also be found in the most recent HYDROPACS covering the UN sanctions against Iraq.
- 6. Ships which, after being intercepted, are determined to be in violation of UN Security Council Resolution 661 will not be allowed to proceed with their planned transit.
- 7. The intercepting ship may use all available communications, primarily VHF Channel 16, but including International Code of Signals, flag hoists, other radio equipment, signal lamps, loudspeakers, bow shots, and other appropriate means to communicate directions to a ship.
- 8. Failure of a ship to proceed as directed will result in the use of the minimum level of force necessary to ensure compliance.
- 9. Any ships, including waterborne craft and armed merchant ships, or aircraft, which threaten or interfere with multinational forces engaged in enforcing a maritime interception may be considered hostile.
- 10. Cancel Special Warning No. 100.

(Dept. of State) (16 Feb 2001)

SPECIAL WARNING NO. 116.

PAKISTAN.

- 1. Mariners calling on Pakistan are advised that levels of sectarian and factional violence remain high. Karachi, the main port, continues to be affected by politically-motivated killings.
- 2. On March 8, 1995, unknown assailants opened fire on an official U.S. Consulate shuttle in Karachi, killing two embassy employees and wounding a third.
- 3. Anti-American sentiment can be provoked easily and spontaneously in response to international events that radicals misconstrue as directed against Islam. For example, the UN resolution on sanctions against Afghanistan resulted in sporadic anti-American protests.
- 4. Port facilities and vessels may offer targets of opportunity for terrorist attacks. U.S. mariners are advised to exercise heightened security awareness and prudent security precautions when in Pakistani ports and waters.
- 5. Cancel Special Warning No. 102.

(Dept. of State) (05 March 2001)

SPECIAL WARNING NO. 117.

ALGERIA.

- 1. Due to the potential for domestic unrest and anti-foreign violence, U.S. mariners are advised to exercise extreme caution when in Algerian waters. Although there has only been one attack against foreigners since 1997, the level of risk in Algeria remains high.
- 2. Attacks against maritime vessels in Algerian ports have taken place several years ago. The U.S. Embassy in Algiers specifically identifies ports, train stations (trains), and airline terminals as terrorist targets. Commercial shipping should remain on maximum alert when in Algerian waters and maintain adequate security precautions.
- 3. The Department of State recommends that U.S. citizens evaluate carefully the implications for their security and safety before deciding to travel to Algeria, and that Americans in Algeria whose circumstances do not afford them effective (armed) protection depart the country. Americans arriving in the country should not disembark and travel within the country without adequate, including armed, protection immediately upon arrival.
- 4. Cancel Special Warning No. 103.

(Dept. of State) (05 March 2001)

SPECIAL WARNING NO. 118.

LEBANON.

- 1. The U.S. Department of State warns U.S. citizens, including U.S. mariners, of the risks of travel to Lebanon and recommends that Americans exercise caution while traveling there. During Lebanon's civil conflict from 1975 to 1990, Americans were targets of numerous terrorist attacks in Lebanon. While there have been very few such incidents in recent years, the perpetrators of these attacks are still present in Lebanon and retain the ability to act.
- 2. The local security environment can limit the movement of U.S. officials in certain areas of the country. This factor, plus limited staffing, may prevent the U.S. Embassy from performing full consular functions and providing timely assistance to U.S. citizens in Lebanon. Dual nationals and spouses of Lebanese citizens can encounter particular difficulties, and should see the Department of State Consular Information Sheet on Lebanon. U.S. citizens who travel to Lebanon despite this warning should exercise extreme caution. U.S. citizens traveling to Lebanon are encouraged to register at the U.S. Embassy in Beirut.

(7) SPECIAL WARNINGS. (Continued).

3. The security situation may change rapidly, and visitors to Lebanon should monitor the news for reports of incidents that might affect their personal safety.

4. Cancel Special Warning No. 71.

(Dept. of State) (09 March 2001)

SPECIAL WARNING NO. 119.

SIERRA LEONE.

- 1. Mariners are strongly advised not to use any ports in Sierra Leone except for the port of Freetown, which is currently considered to provide safe harborage. Mariners should note that the Department of State warns U.S. citizens against travel to Sierra Leone. Although the security situation in Freetown has improved somewhat, areas outside the capital are still very dangerous.
- 2. The Department of State has terminated the ordered departure status of U.S. Government personnel in non-emergency positions. However, the U.S. Embassy in Freetown currently operates with a reduced staff. Only emergency consular services to U.S. citizens are available, and the Embassy's ability to provide these services is limited. U.S. citizens in Sierra Leone should review their own personal security situations in determining whether to remain in the country.
- 3. Cancel Special Warning No. 109.

(Dept. of State) (16 March 2001)

SPECIAL WARNING NO. 120.

WORLDWIDE.

- 1. Due to recent events in the Middle East and the American homeland, U.S. forces worldwide are operating at a heightened state of readiness and taking additional defensive precautions against terrorist and other potential threats. Consequently, all aircraft, surface vessels, and subsurface vessels approaching U.S. forces are requested to maintain radio contact with U.S. forces on Bridge-to-Bridge Channel 16, international air distress (121.5 MHz VHF) or MILAIR distress (243.0 MHz UHF).
- 2. U.S. forces will exercise appropriate measures in self-defense if warranted by the circumstances. Aircraft, surface vessels, and subsurface vessels approaching U.S. forces will, by making prior contact as described above, help make their intentions clear and avoid unnecessary initiation of such defensive measures.
- 3. U.S. forces, especially when operating in confined waters, shall remain mindful of navigational considerations of aircraft, surface vessels, and subsurface vessels in their immediate vicinity.
- 4. Nothing in the special warning is intended to impede or otherwise interfere with the freedom of navigation or overflight of any vessel or aircraft, or to limit or expand the inherent self-defense rights of U.S. forces. This special warning is published solely to advise of the heightened state of readiness of U.S. forces and to request that radio contact be maintained as described above.

(Dept. of State) (16 November 2001)

SPECIAL WARNINGS FOOTNOTE.

In January 1977, DMA now NIMA commenced issuing warnings as NAVAREAS IV and XII broadcasts in addition to the HYDROLANT and HYDROPAC series.

(Supersedes NTM 1(7)02)

(NIMA/DEPT. OF STATE)

(8) TRADE WITH CUBA.

The President of the United States proclaimed an embargo February 7, 1962 on all trade with Cuba. Except as authorized by Department of Treasury regulations or license, all dealings in property in which Cuba or a Cuban national has an interest (including all financial transactions in Cuba) by any person subject to U.S. jurisdiction are prohibited. Unless otherwise authorized by the Department of Treasury, it is unlawful for any person subject to the jurisdiction of the United States to transport, import, or otherwise deal in or engage in any transaction with respect to any merchandise outside the United States if such merchandise: (1) is of Cuban origin; (2) is or has been located in or transported from or through Cuba; or (3) is made or derived in whole or part from any Cuban growth, produce, or manufacture. It is also unlawful for any person subject to U.S. jurisdiction to engage in any transportation of goods or merchandise from anywhere to Cuba unless the following conditions are met: (1) such transportation is licensed or otherwise authorized by Treasury; and (2) if U.S. goods or merchandise are involved, the exportation is itself licensed or otherwise authorized by the Department of Commerce under the provisions of the

(8) TRADE WITH CUBA. (Continued).

Export Administration Act of 1979, as amended. Licenses or authorizations to engage in such trade will not normally be granted. Certain exceptions exist for trade in informational materials. Unless licensed by Treasury, no vessel may enter a U.S. port for any purpose including bunkering or the acquisition of ship's stores if there are on board goods or passengers coming from, or going to, Cuba, or goods in which Cuba or a Cuban national has an interest. Unless licensed by Treasury, no vessel which enters a port or place in Cuba to engage in the trade of goods or services may, within 180 days of such vessel's departure from such port or place in Cuba, load or unload freight at any place in the United States. Persons who violate these restrictions may be subject to criminal or civil sanctions, or both, and vessels involved in such trade contrary to law may be subject to seizure and forfeiture (reviewed November 12, 1998).

(Repetition NTM 1(8)02) (DEPT. OF STATE)

(9) AUTOMATED MUTUAL-ASSISTANCE VESSEL RESCUE (AMVER).

The Internet website for Amver is: www.amver.com. The Amver system, maintained and administered by the United States Coast Guard, with the cooperation of coast radio stations of many nations, is a global ship reporting system for search and rescue (SAR) which provides important aid to the development and coordination of SAR efforts in the offshore areas of the world. Vessels of all nations, on the high seas, are encouraged to voluntarily send movement (sailing) reports and periodic position reports to the Amver Center located in Martinsburg, West Virginia, via selected radio stations and coast earth stations.

Information from these reports is entered into a computer database which is used to generate and maintain dead reckoning positions. Characteristics of vessels which are valuable for determining SAR capability are also entered into the computer from available sources of information. Information concerning the predicted location and SAR characteristics of each vessel estimated to be within the area of interest is made available, upon request, only to recognized SAR agencies of any nation, or vessels needing assistance. Predicted locations are only disclosed for reasons related to maritime safety.

Messages sent within the Amver system are at no cost to the ship or owner. Benefits to shipping include: (1) improved chances of aid in emergencies, (2) reduced number of calls for assistance by vessels not favorably located to assist, and (3) reduced time lost by vessels responding to calls for assistance. An Amver participant is under no greater obligation to render assistance during an emergency than a vessel that is not participating.

Instructions on participation in the Amver system are usually available in the following languages: Chinese, Danish, Dutch, English, French, German, Greek, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, and Swedish. They are available from:

Amver Maritime Relations USCG Battery Park Building New York, New York 10004-1499 U.S.A.

Telephone: (212) 668-7762

E-mail: rkenney@batteryny.uscg.mil

In addition to its Internet web page of www.amver.com other sources for Amver information include U.S. Coast Guard Area and District offices, Marine Inspection Offices, and Captain of the Port Offices in major U.S. ports. Requests for instructions should state the language desired if other than English.

Amver reports can be sent at no cost to the ship if sent via Inmarsat-C using the Amver/SEAS software and designated Telenor land earth stations. Necessary equipment includes an IBM PC or compatible with a 3.5 inch floppy disk drive and an Inmarsat-C mobile terminal with a 3.5 inch floppy disk drive and external port. Amver/SEAS software is available through Telenor Satellite Services, Inc., or can be downloaded from the Internet through the Amver web page or the National Oceanic and Atmospheric Administration web page at: http://seas.amverseas.noaa.gov/seas/.

(Supersedes NTM 1(09)02) (USCG)

(10) INTERNATIONAL AERONAUTICAL AND MARITIME SEARCH AND RESCUE (IAMSAR) MANUAL.

The International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, Volume III, Mobile Facilities has replaced the Merchant Ship SAR Manual (MERSAR). IAMSAR Manual, Volume III, Mobile Facilities, is intended to be carried aboard rescue units, aircraft, and vessels to help with performance of a search, rescue, or on-scene coordinator function and with aspects of search and rescue that pertain to their own emergencies. This Manual can be purchased directly from IMO or from selected book sellers around the world as provided under "Publication Catalogue" on IMO web page: www.imo.org. It is available in the English, French, Russian, and Spanish languages.

(Supersedes NTM 1(10)02) (USCG)

(11) SPECIAL REPORTING INSTRUCTIONS FOR U.S. FLAG VESSELS, VESSELS CARRYING WAR RISK INSURANCE, AND CERTAIN OTHER DESIGNATED VESSELS (Formerly USMER Vessels).

According to a U.S. Maritime Administration regulation effective 1 August 1983, U.S. flag vessels and foreign-flag "War Risk" vessels must report and regularly update their voyages to the Amver Center.

Who Must Report

- A. U.S.-flag vessels of one thousand gross tons or more, operating in foreign commerce.
- B. Foreign-flag vessels of one thousand gross tons or more, for which an Interim War Risk Insurance binder has been issued under the provisions of Title XXI, Merchant Marine Act, 1936.

Who May Report

Other merchant vessels, when approved by MARAD, whose owners may have chosen to participate and to have voyage information forwarded to MARAD. (Other merchant vessels may participate in Amver, but information provided by them will be released only for safety purposes or to satisfy certain advance arrival notification requirements of Title 33, Code of Federal Regulations.)

When to Report

- A. Sailing plans may be sent days or even weeks prior to departure, but no later than departure.
- B. Departure Report must be sent as soon as practicable upon leaving port.
- C. Position Report must be sent within twenty-four hours of departure, and subsequently no less frequently than every forty-eight hours until arrival.
- D. Arrival Report must be sent immediately prior to or upon arrival at the Port of Destination.
- E. Reports are to be sent during the Radio Officer's normal duty hours, but no later than the above schedule.
- F. At the discretion of the vessel, reports may be sent more frequently than the above schedule, as, for example, in heavy weather or under other adverse conditions.

(Repetition NTM 1(11)02) (USCG)

(12) URGENCY AND SAFETY SIGNALS.

The radiotelephone urgency signal, which is the group of words PAN PAN (pronounced "Pahn-Pahn") spoken three times, is provided for use in cases in which a ship making a call has a very urgent message to transmit concerning the safety of a ship, aircraft, or other vehicle, or the safety of a person, but it does not necessarily imply that the ship is in imminent danger or requires immediate assistance. The call has priority over all other communications except distress calls and it should be used in all urgent cases in which the sending out of the SOS or MAYDAY signal is not fully justified.

The urgency signal and message may be addressed to all stations or to a specific station. The urgency signal may also be used when the Master of a ship desires to issue a warning that circumstances are such that it may become necessary for him to send out the distress signal at a later stage. The message must be canceled as soon as any action is no longer necessary.

The radiotelephone SAFETY signal "SECURITE" (pronounced "SAY-CUR-I-TAY") spoken three times, is provided for reporting hazards to navigation or meteorological warnings including dangers regarding ice, derelicts, tropical storms, etc. (Repetition NTM 1(12)02) (USCG)

(13) SUBMARINE EMERGENCY IDENTIFICATION SIGNALS AND HAZARD TO SUBMARINES.

- 1. U.S. submarines are equipped with signal ejectors which may be used to launch identification signals, including emergency signals. Two general types of signals may be used: smoke floats and flares or stars. A combination signal which contains both smoke and flare of the same color may also be used. The smoke floats, which burn on the surface, produce a dense, colored smoke for a period of fifteen to forty-five seconds. The flares or stars are propelled to a height of three hundred to four hundred feet from which they descend by small parachute. The flares or stars burn for about twenty-five seconds. The color of the smoke or flare/star has the following meaning:
 - a) GREEN-Used under training exercise conditions only to indicate that a torpedo has been fired or that the firing of a torpedo has been simulated.
 - b) YELLOW-Indicates that submarine is about to come to periscope depth from below periscope depth. Surface craft terminate antisubmarine counter-attack and clear vicinity of submarine. Do not stop propellers.
 - c) RED-Indicates an emergency condition within the submarine and that it will surface immediately, if possible. Surface ships clear the area and stand by to give assistance after the submarine has surfaced. In case of repeated red signals, or if the submarine fails to surface within reasonable time, she may be assumed to be disabled. Buoy the location, look for submarine buoy and attempt to establish sonar communications. Advise U.S. Naval authorities immediately.
 - d) WHITE-Two white flares/smoke in succession indicates that the submarine is about to surface, usually from periscope depth (non-emergency surfacing procedure). Surface craft should clear the vicinity of the submarine.
- 2. A Submarine Marker Buoy consists of a cylindrically shaped object about 3 feet by 6 feet with connecting structure and is painted international orange. The buoy is a messenger buoy with a wire cable to the submarine; this cable acts as a downhaul line for a rescue chamber. The buoy may be accompanied by an oil slick release to attract attention. A submarine on the bottom in distress and unable to surface will, if possible, release this buoy. If an object of this description is sighted, it should be investigated and U.S. Naval Authorities advised immediately.
- 3. Transmission of the International Distress Signal (SOS) will be made on the submarine's sonar gear independently or in conjunction with the red emergency signal as conditions permit.
- 4. Submarines may employ any or all of the following additional means to attract attention and indicate their position while submerged:
 - a) Release of dye marker.
 - b) Ejection of oil.
 - c) Release of air bubble.
 - d) Pounding on the hull.
- 5. United States destroyer-type vessels in international waters will, on occasion, stream a towed underwater object at various speeds engaged in naval maneuvers. All nations operating submarines are advised that this underwater object in the streamed condition constitutes a possible hazard to submerged submarines.

(Repetition NTM 1(13)02) (U.S. NAVY)

(14) RULES, REGULATIONS AND PROCLAMATIONS ISSUED BY FOREIGN GOVERNMENTS.

The National Imagery and Mapping Agency, as a means of promoting maritime safety, includes in its publications rules, regulations, and proclamations affecting navigation as issued by foreign nations.

In this connection, it should be clearly understood that the publication of such material is solely for information relative to the navigational safety of shipping, and in no way constitutes a legal recognition by the United States of the international validity of any rule, regulation, or proclamation so published. While every effort is made to publish all such information, the National Imagery and Mapping Agency cannot assume any liability for failure to publish any particular rule, regulation, proclamation, or the details thereof.

(Repetition NTM 1(14)02) (NIMA/PTNM)

(15) WARNING-DANGER FROM SUBMARINE CABLES AND PIPELINES.

Submarine cables or pipelines pass beneath various navigable waterways throughout the world. Installation of new submarine cables and pipelines may be reported in the Notice to Mariners; their locations may or may not be charted. Where feasible, warning signs are often erected to warn the mariners of their existence. In view of the serious consequences resulting from damage to submarine cables and pipelines, vessel operators should take special care when anchoring, fishing or engaging

(15) WARNING-DANGER FROM SUBMARINE CABLES AND PIPELINES. (Continued).

in underwater operations near areas where these cables or pipelines may exist or have been reported to exist.

Certain cables carry high voltages; many pipelines carry natural gas under high pressure or petroleum products. Electrocution, fire or explosion with injury or loss of life or a serious pollution incident could occur if they are penetrated. Vessels fouling a submarine cable or pipeline should attempt to clear without undue strain. Anchors or gear that cannot be cleared should be slipped; no attempt should be made to cut a cable or pipeline.

(Repetition NTM 1(16)02) (USCG)

(16) CAUTION-CLOSE APPROACH TO MOORED OFFSHORE AIDS TO NAVIGATION.

Courses should invariably be set to pass these aids with sufficient clearance to avoid the possibility of collision. Errors of observation, current and wind effects, other vessels in the vicinity, and defects in steering gear may be, and have been, the cause of collisions. Experience shows that buoys cannot be safely used as leading marks to be passed close aboard, and should always be left broad off the course whenever sea room permits.

It should be borne in mind that most large buoys are anchored to a very long scope of chain and, as a result, the radius of their swinging circle is considerable. The charted position is the approximate location. Furthermore, under certain conditions of wind and current, they are subject to sudden and unexpected sheers which are certain to hazard a vessel attempting to pass close aboard.

Further warning on use of floating aids to navigation for position taking is contained in paragraph 1 of this Notice. When approaching an offshore light structure, large navigational buoy, or a station on a submarine site, on radio bearings, the risk of collision will be lessened by ensuring that the radio bearing does not remain constant.

(Repetition NTM 1(16)02) (USCG)

(17) PIPELINE LAYBARGES AND JETBARGES.

With the increased number of pipeline laying operations in the Gulf of Mexico and other areas, operators of all types of vessels should be aware of the dangers of passing close aboard, close ahead, or close astern of a jetbarge or pipelaying barge. Pipelaying barges and jetbarges usually move at 1/2 knot or less and have anchors which extend out approximately 3500-5000 feet in all directions, and may be marked by lighted anchor buoys. The exposed pipeline behind the pipelaying barge and the areas in the vicinity of anchors are hazardous to navigation and should be avoided. The pipeline and anchor cables also represent a submerged hazard to navigation. It is suggested, if safe navigation permits, for all types of vessels to pass well ahead of the pipelaying barge or well astern of the jetbarge. The pipelaying barge, jetbarge, and attending vessels may be contacted on VHF-FM Channel 16 for passage instructions.

(Repetition NTM 1(17)02) (USCG)

(18) REQUIRED REPORTING OF DAMAGED U.S. AIDS TO NAVIGATION.

It frequently occurs that aids to navigation are collided with, causing damage and displacement, or complete loss, without the knowledge of the Coast Guard District Commander. The replacement or repair of such aids is consequently often not made as promptly as desired. This situation results in diminished protection for marine traffic, and is attributable in large part to the failure of vessel operators to furnish notice of these collisions to the nearest local or district office of the U.S. Coast Guard, or to Coast Guard Headquarters, as required by law and regulation. The prompt submission of notice of any marine casualty or accident, including damage or destruction of aids to navigation, is required by the Marine Investigation Regulations, Section 4.05-20 of Title 46, Code of Federal Regulations, with penalty for noncompliance.

(Repetition NTM 1(18)02) (USCG)

(19) OIL POLLUTION-COMPLIANCE WITH THE CLEAN WATER ACT.

The Federal Water Pollution Control Act (FWPCA) prohibits the discharge of quantities of either oil or hazardous substances which may be harmful into or upon the navigable waters of the United States. This prohibition also applies to adjoining shorelines, waters of the contiguous zone, activities connected with the Outer Continental Shelf Lands Act (OSLA) and Deepwater Port Act of 1974, and such discharges which may affect natural resources belonging to the United States or under

(19) OIL POLLUTION-COMPLIANCE WITH THE CLEAN WATER ACT. (Continued).

its exclusive management authority, including those resources under the Fishery Conservation and Management Act of 1976. Furthermore, in the event a spill does occur in violation of the Act the person in charge of a vessel or onshore or offshore facility is required to notify the Coast Guard as soon as he has knowledge of the spill. Such notification is to be by the most rapid means available to the National Response Center (1-800-424-8802, nationwide 24 hour number). (Repetition NTM 1(19)02) (USCG)

(20) COMPLIANCE WITH THE ACT TO PREVENT POLLUTION FROM SHIPS.

The Act to Prevent Pollution from ships (33 U.S.C. 1901) implements into U.S. law the International Convention for the Prevention of Pollution from Ships, as modified by the Protocol of 1978 (MARPOL 73/78). Under the Act, the U.S. Coast Guard is responsible for inspecting and certifying that U.S. vessels meet the applicable requirements. Annex I of MARPOL 73/78 deals with oil and oily waste, Annex II with hazardous chemicals and other substances referred to as Noxious Liquid Substances (NLS), and Annex V deals with the prevention of marine pollution by plastics and other garbage produced during vessel operations.

Annex I of MARPOL 73/78 is applicable to oceangoing tankers over 150 gross tons and all other oceangoing ships over 400 gross tons. The MARPOL 73/78 requirements include oily waste discharge limitations, oily-water separating equipment, monitoring and alarm systems for discharges from cargo areas, cargo pump rooms and machinery space bilges. Ships to which Annex I MARPOL 73/78 is applicable are also required to have an International Oil Pollution Prevention (IOPP) Certificate verifying that the vessel is in compliance with the requirements of MARPOL 73/78 and that any required equipment is on board and operational. Vessels must also maintain an Oil Record Book recording all oil transfers and discharges. The Oil Record Book is available from the USCG Supply Center Baltimore or any local Captain of the Port.

Annex II of MARPOL 73/78 is applicable to oceangoing vessels and non-self propelled oceangoing ships which carry Noxious Liquid Substances (NLS) in bulk. The Annex II requirements include discharge restrictions for various classes of cargo residues; the maintenance of a Cargo Record Book for recording all NLS cargo and residue transfers and discharges; and a Procedures and Arrangements Manual describing the correct procedures for off loading and prewashing cargo tanks.

Annex II NLS cargoes are classified in one of four categories, A, B, C, or D. Category A is the most hazardous to the environment. Category A and other substances which tend to solidify in tanks must be prewashed in port under the supervision of a Prewash Surveyor prior to departure from the off loading terminal. Vessel discharges must be underwater when discharge at sea is allowed. Tanks which carry Category B and C NLS must be tested to ensure that after tank stripping only a minimal amount of residues will remain. Reception facilities must be able to assist in cargo stripping operations by reducing back pressure during the final stages of off loading.

Terminals and ports receiving oceangoing tankers, or any other oceangoing ships of 400 GT or more, carrying residues and mixtures containing oil, or receiving oceangoing ships carrying NLSs, are required to provide adequate reception facilities for the wastes generated. Coast Guard Captains of the Port issue a Certificate of Adequacy to terminals or ports to show that they are in compliance with federal reception facility requirements. An oceangoing tanker or any other oceangoing ship of 400 GT or more required to retain oil or oily residues and mixtures on board and an oceangoing ship carrying a Category A, B or C NLS cargo or NLS residue in cargo tanks that are required to be prewashed, may not enter any port or terminal unless the port or terminal holds a valid Certificate of Adequacy or unless the ship is entering under force majeure.

Annex V is applicable to all recreational, fishing, uninspected and inspected vessels, and foreign flag vessels on the navigable waters and all other waters subject to the jurisdiction of the United States, out to and including the Exclusive Economic Zone (200 miles).

Annex V prohibits the disposal of any and all plastic material from any vessel anywhere in the marine environment. Dunnage, lining and packing materials which float may be disposed of beyond 25 miles from the nearest land. Other garbage that will not float may be disposed of beyond 12 miles of land, except that garbage which can pass through a 25mm mesh screen (approximately 1 square inch) may be disposed of beyond 3 miles. Dishwater is not to be considered garbage within the meaning of Annex V when it is the liquid residue from the manual or automatic washing of dishes or cooking utensils. More restrictive disposal regimes apply in waters designated "Special Areas." This Annex requires terminals to provide reception facilities at ports and terminals to receive plastics and other garbage from visiting vessels.

(20) COMPLIANCE WITH THE ACT TO PREVENT POLLUTION FROM SHIPS. (Continued).

MARPOL 73/78 requires the immediate reporting of any unpermitted discharges of oil or other substances. The civil penalty for each violation of MARPOL 73/78 is not more than \$25,000 per day. The criminal penalty for a person who knowingly violates the MARPOL Protocol, or the regulations (33 CFR 151, 155, 157, and 158), consists of a fine of not more than \$250,000 and/or imprisonment for not more than 5 years; U.S. law also provides criminal penalties up to \$500,000 against organizations which violate MARPOL.

International Safety Management (ISM) Code Implementation: Compliance with the ISM Code is mandatory for passenger ships, and oil and chemical tankers, gas carriers, bulks carriers, and cargo high speed craft over 500 Gross Ton engaged on international voyages. Other cargo ships and MODUs over 500 GT must comply by July 1, 2002. To demonstrate compliance, vessels must present copies of approved Documents of Compliance and Safety Management Certificates to Coast Guard Port State control Boarding Officers during routine compliance examinations. ISM compliance demonstrates that vessel operators have safety and environmental policies, emergency response procedures, designated accident and code non-conformity reporting procedures, and on board maintenance and operating manuals. If inbound vessels are not in compliance with ISM Code after the implementation dates of July 1, 1998 or 2002, they will be denied entry into U.S. waters. (Repetition NTM 1(20)02)

(21) PACKAGED MARINE POLLUTANTS-COMPLYING WITH MARPOL ANNEX III.

On October 1, 1993, new regulations under the Hazardous Materials Transportation Act (HMTA) took effect, implementing MARPOL Annex III in the United States. MARPOL Annex III deals with the prevention of marine pollution by harmful substances in packaged form.

Annex III of MARPOL 73/78 applies to all ships carrying harmful substances in packaged form. Annex III provides standards for stowage, packing, labeling, marking, and documentation of substances identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code). On 5 November 1992, the U.S. Research and Special Programs Administration (RSPA) amended the Hazardous Materials Regulations (HMR, 49 CFR 100-177) to list and regulate these marine pollutants in all modes of transportation. Under the HMR, marine pollutants are listed in a separate appendix, and a "marine pollutant mark" is required for those materials. The marine pollutant mark is used in addition to any existing labels or placards designating a hazardous substance.

Marine pollutants are divided into two classes: marine pollutants and severe marine pollutants. A solution or mixture containing 10% or more of any marine pollutant falls into the class of "marine pollutant." The "severe marine pollutant" class consists of those materials that contain 1% or more of any specified "severe marine pollutant" substance. Marine pollutants that do not meet the criteria for any other hazard class are transported as an environmentally hazardous substance, solid or liquid, N.O.S. (class 9).

(Repetition NTM 1(21)02) (USCG)

(22) POLLUTION-OCEAN DUMPING.

The Marine Protection Research and Sanctuaries Act of 1972, as amended (33 USC 1401 et seq.), regulates the dumping of all material, except fish waste, into ocean waters. Radiological, chemical and biological warfare agents and other high level radioactive wastes are expressly banned from ocean disposal. The Army Corps of Engineers issues permits for the disposal of dredged spoils; the Environmental Protection Agency is authorized to issue permits for all other dumping activities. Surveillance and enforcement to prevent unlawful transportation of material for dumping or unlawful dumping under the Act has been assigned to the U.S. Coast Guard. The Act provides civil penalties of up to \$50,000 and criminal penalties of up to \$50,000 and/or one year imprisonment.

(Repetition NTM 1(22)02) (USCG)

(23) WARNING-POSSIBLE DANGER FROM UNLABELED INTERMODAL CONTAINERS AND DRUMS.

With the many exotic chemicals being transported in inter-modal freight containers and in drums as deck cargo, increasingly more reports are received regarding the loss overboard of these potentially dangerous cargo-carrying units. Empty containers and drums may contain residues which may be extremely hazardous to touch or smell, and vapors emanating from these packages may be explosive.

(23) WARNING-POSSIBLE DANGER FROM UNLABELED INTERMODAL CONTAINERS AND DRUMS. (Continued).

When encountering derelict inter-modal containers and drums, whether afloat or from the sea bottom, the dangers listed above should be considered. Identifying labels will give adequate warning, but containers and drums are more likely to be found with caution labels washed away. All inter-modal freight containers have unique identifying numbers, which should be included in any sighting report if visible from a safe distance. Avoid direct contact and notify U.S. Coast Guard of any sightings in U.S. coastal waters (24 HR TOLL FREE reporting number 1-800-424-8802), or government authorities of the nearest port state if sighting is near any foreign shores.

(Repetition NTM 1(23)02) (USCG)

(24) REPORTING OF DANGERS TO NAVIGATION.

Mariners will occasionally discover uncharted shoals, malfunctions of important navigational aids or other dangerous situations that should be made known to other navigators. Those items that can be classified as urgent should be reported by any rapid means to the closest responsible charting authority. The general criterion for important data is "that information, without which, a mariner might expose his vessel to unnecessary danger." Reports to the U.S. Coast Guard and to foreign authorities can be made via radio using voice, SITOR and Digital Selective Calling (DSC), via TELEX, or via satellite using telephone and fax. Reports to NIMA in Bethesda, MD can be made via Defense Messaging System (DMS) (NIMA NAVSAFETY BETHESDA MD) message, TELEX, telephone, fax and e-mail.

Guidance in preparing reports of dangers to navigation and specific radio frequencies, addresses and telephone numbers are contained in NIMA Pub. 117, Radio Navigational Aids. Reports should be brief, but must contain:

What - Description of danger

When - GMT and date

Where - Latitude and Longitude (Reference chart in use.)

Who - Reporting vessel and observer

Additionally, mariners are requested to notify NIMA of discrepancies in charts and publications, using the Marine Information Report and Suggestion Sheet found in the back of each Notice to Mariners.

(Supersedes NTM 1(24)02) (NIMA/PTNM)

(25) VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE REGULATIONS.

APPLICATION: These regulations contain watch and equipment requirements for VHF-FM Radiotelephone. The regulations apply to the following vessels (including recreational, uninspected, and military vessels) while underway on the navigable waters of the U.S. (e.g. on internal rivers and tributaries and seaward out to twelve nautical miles off the coast):

- (1) Every power-driven vessel 20 meters or greater in length;
- (2) Every vessel of 100 gross tons and upwards carrying one or more passengers for hire while navigating;
- (3) Every towing vessel 26 feet or over in length while navigating; and
- (4) Every dredge and floating plant engaged in or near a channel or fairway in operations likely to restrict or affect navigation of other vessels except for an unmanned or intermittently manned floating plant under the control of a dredge.

WATCH ON CHANNEL 13: The master, operator, or whoever is designated to pilot the vessel, must maintain a listening watch on the designated bridge-to-bridge frequency while underway on the navigable waters of the United States. The designated frequency is VHF-FM Channel 13 (except on portions of the lower Mississippi River where Channel 67 is the designated frequency). The person maintaining the watch must also be able to communicate in English.

WATCH ON CHANNEL 16: In addition to the Channel 13 watch, vessels must keep a continuous watch on VHF-FM Channel 16 (International Distress and Calling Channel) while underway, or when participating in and monitoring a Vessel Traffic Service (VTS) Channel.

(25) VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE REGULATIONS. (Continued).

VOLUNTARY STATIONS: Vessels not subject to the Vessel Bridge-to-Bridge Regulations although not required to have a VHF-FM radio onboard, must maintain a watch on Channel 16 whenever the radio, if on board, is operating (i.e. energized) and is not being used to communicate on other channels.

PASSING ARRANGEMENTS: A vessel that reaches agreement with another vessel in a head-on, crossing, or overtaking situation, by using the radiotelephone as prescribed by the Vessel Bridge-to-Bridge Radiotelephone Act, is not obliged to sound the whistle signals prescribed by this rule, but may do so. If agreement is not reached, then whistle signals shall be exchanged in a timely manner and shall prevail (Inland Navigation Rule 34(h)).

Note: Such "passing arrangements" are not recognized under the International Regulations for Preventing Collisions at Sea (COLREGS).

MORE INFORMATION: The Vessel Bridge-to-Bridge Radiotelephone Regulations can be found in the Coast Guard publication Navigation Rules: International-Inland, (COMDTINST M16672.2D), additional VHF-FM Radiotelephone regulations can be found in Title 47, Part 80, Title 33, Part 26 of the Code of Federal Regulations, and Title 33, U.S. Code 1201 et seq. For questions, write to: Commandant (G-MWV), U.S. Coast Guard, 2100 2nd Street, SW, Washington, D.C. 20593-0001. Tel: (202) 267-0407 or visit: http://www.uscg.mil/vtm/pages/rules.htm.

(Supersedes NTM 1(25)02) (USCG)

(26) SEISMIC SURVEYS.

Details of seismic surveys may be broadcast to mariners via HYDROLANT, HYDROPAC, NAVAREA IV and NAVAREA XII broadcast systems. Surveys can be conducted without prior notification or broadcast warnings.

Survey vessels may operate alone or in company with other surface vessels or submersibles. Survey vessels may be towing cables in excess of 2 miles astern. Cables may be marked by buoys and may be towed on the surface or submerged.

During a survey, repeated shock waves are created by using explosive charges, compressed air, mechanical vibrators or by electrical means at any level from the bottom to the surface. Vessels surveying may be underway but sometimes are stopped for extended periods.

Seismic survey vessels which are unable to maneuver are required to carry the lights and signals described in Rule 27 of International Regulations for Preventing Collisions at Sea. These vessels should be given a wide berth.

Charges may be contained in a variety of cylinders, tubes, or bags which may not be marked as dangerous. No attempt to recover such items should be made. Any suspicious charge-like containers inadvertently taken aboard by trawls or any other means should be carefully handled and jettisoned immediately if possible.

(Repetition NTM 1(26)02) (NIMA/PTNM)

(27) UNITED STATES-CAUTION REGARDING SUBMARINE OPERATIONS.

Boundary limits and designations of submarine operating areas are shown on the charts in magenta or purple lines. As submarines may be operating in these areas, vessels should proceed with caution. During torpedo practice firing, all vessels are cautioned to keep well clear of naval target vessels flying a large red flag where it may best be seen.

During the past a number of potentially dangerous incidents have occurred. Ships have entered Fleet Operating Areas in which UDT (Underwater Demolition Teams) or SEAL (Sea, Air, and Land) Teams were conducting scheduled operations from a submerged submarine. These operations were being conducted in a specific area assigned for that purpose. These submerged operations ordinarily involve transferring swimmers in and out of a submarine while submerged. In this situation, movements of the submarine must be restricted in course, speed, and depth. Furthermore, emergency surfacing could prove hazardous and result in loss of life to swimmers. Therefore, when conducting operations of this type the submarine and swimmer detachment are relatively immobile and are helpless to evade approaching ships passing through their area. There is also a real danger that a well-intentioned ship, unaware of these operations, might turn in the submarine's direction to investigate rubber raft, swimmers, or submarine periscope.

Notice of date and time prior to any subsurface operations should be provided to Commander Submarine Force, U.S. Atlantic Fleet, 7958 Blandy Rd., Norfolk, VA 23551-2492.

(Repetition NTM 1(27)02) (U.S. NAVY)

(28) SPECIAL RULES WITH RESPECT TO ADDITIONAL STATION AND SIGNAL LIGHTS FOR NAVY SHIPS.

- 1. Man overboard lights.-Naval vessels may display, as a means of indicating man overboard, two pulsating, all around red lights in a vertical line located on a mast from where they can best be seen.
- 2. Yard arm signaling lights.-Naval vessels may display, as a means of visual signaling, white all around lights at the end of the yardarms. These lights will flash in varying sequences to convey the intended signal.
- 3. Aircraft warning lights.-Naval vessels may display, as a means of indicating the presence of an obstruction to low flying aircraft, one or two all around red lights on each obstruction.
- 4. Underway replenishment contour lights.-Naval vessels may display, as a means of outlining the contour of the delivery ship during night time underway replenishment operations, red or blue lights at deck edge extremities. These lights are being converted to blue, vice red, therefore either color may be seen until conversion is complete.
- 5. Minesweeping station keeping lights.-Naval vessels engaged in minesweeping operations may display, as an aid in maintaining a prescribed interval and bearing, two white lights in a vertical line visible from 070 through 290 degrees relative.
- 6. Submarine identification light.-Submarines may display, as a distinctive means of identification, an intermittently flashing amber beacon located where it can best be seen, as near as practicable, all around the horizon.
- 7. Special operations lights.-Naval vessels may display, as a means of coordinating certain operations, a revolving beam colored red, green or amber, located on either yardarm or mast platform from where it can be seen all around the horizon.
- 8. Convoy operations stern light.-Naval vessels may display, during periods of convoy operations, a blue light located near the stern, with the same characteristics as, but in lieu of, the normal white stern light.
- 9. Wake illumination light.-Naval vessels may display a white light located near the stern to illuminate the wake.
- 10. Flight operations lights.-Naval vessels engaged in night flight operations may display various arrangements of light systems containing combinations of different colored lights as a means of assisting in the launch and recovery of aircraft and enhancing flight safety. These light systems will be located at various points on the vessels, depending on the vessel type and nature or the flight operations being conducted.
- 11. Amphibious operations lights.-Naval vessels engaged in night amphibious operations may display various arrangements of light systems containing combinations of different colored lights as a means of assisting in the launch and recovery of assault craft and enhancing the safety of the amphibious operation. These light systems will be located at various points on the vessels, depending on the vessel type and the nature of the amphibious operations being conducted.
- 12. Minesweeping polarity signal lights.-Naval vessels engaged in minesweeping operations may display either a red or green light on each side of vessel.
- 13. Replenishment-at-sea floodlights.-Naval vessels engaged in replenishment-at-sea operations may display various arrangements of floodlights of different colors for general illumination of equipment, work areas, and cargo being transferred between ships. These lights will be located at various points on the vessels, depending on the vessel type and location of the replenishment-at-sea handling areas.
- 14. Replenishment-at-sea cargo transfer signal lights.-Naval vessels engaged in replenishment-at-sea operations may display one or more red light signal devices on the delivery side of the vessels. These devices display various combinations of lights to indicate type of cargo being transferred.
- 15. Replenishment-at-sea truck light.-Naval vessels engaged in replenishment-at-sea operations may display one or more red all-round light(s) located on a mast to assist the receiving vessel in approaching the delivery vessel.
- 16.Replenishment-at-sea lights.-Naval aircraft carriers and similar type vessels may display two all-round lights installed along the forward starboard flight deck edge to indicate the fore-and-aft axis when the aircraft carrier or similar type vessel is the delivery vessel.

(Repetition NTM 1(28)02) (U.S. NAVY)

(29) UNITED STATES NAVAL VESSELS-NAVIGATIONAL LIGHT WAIVERS-DISTINCTIVE LIGHTS AUTHORIZED FOR NAVAL VESSELS.

1. All ships are warned that, when U.S. Naval vessels are met on the high seas or on navigable waters of the United States during periods when navigational lights may be displayed; certain navigational lights of some naval vessels may vary from the requirements of the Regulations for Preventing Collisions at Sea, 1972, and rules applicable to the navigable waters of the United States, as to number, position, range of visibility or arc of visibility. These differences are necessitated by reasons of military function or special construction of the naval ships. An example is the aircraft carrier where the two masthead lights are considerably displaced to starboard from the center or keel line of the vessel when viewed from ahead. Certain other naval vessels cannot comply with the horizontal separation requirements of the masthead lights, and the two masthead lights on even larger naval vessels, such as some cruisers, will thus appear to be crowded together when viewed

(29) UNITED STATES NAVAL VESSELS-NAVIGATIONAL LIGHT WAIVERS-DISTINCTIVE LIGHTS AUTHORIZED FOR NAVAL VESSELS. (Continued).

from a distance. Other naval vessels may also have unorthodox navigational light arrangements or characteristics when seen either underway or at anchor.

- 2. Naval vessels may also be expected to display certain other lights. These lights include, but are not limited to, different colored recognition light signals, and aircraft landing lights. These lights may sometimes be shown in combination with navigational lights.
- 3. During naval maneuvers, naval ships, alone or in company, may also dispense with showing any lights, though efforts will be made to display lights on the approach of shipping.
- 4. Naval vessels, except for aircraft carrier types (CV, CVN, AVT, LHA, LHD, MCS and LPH), may dispense with showing the masthead lights during operations or maneuvers in which the vessels are restricted in ability to maneuver.

(Repetition NTM 1(29)02) (CNO)

(30) TRAFFIC SEPARATION SCHEMES, AREAS TO BE AVOIDED, AND RECOMMENDED TRACKS.

To increase the safety of navigation, particularly in converging areas of high traffic density, routes incorporating traffic separation have been adopted by the IMO in certain areas of the world. In the interest of safe navigation, it is recommended that through traffic use these schemes, as far as circumstances permit, by day and by night and in all weather conditions.

An area to be avoided is a routing measure comprising an area within defined limits, in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties, and which should be avoided by all ships, or certain classes of ships.

Recommended tracks are routes, generally found to be free of dangers, which ships are advised to follow to avoid possible hazards nearby.

The International Maritime Organization (IMO) is recognized as the only international body responsible for establishing and recommending measures on an international level concerning ships' routing. In deciding whether or not to adopt or amend a traffic separation scheme, IMO will consider whether the scheme complies with the design criteria for traffic separation schemes and with the established methods of routing. IMO also considers whether the aids to navigation proposed will enable mariners to determine their position with sufficient accuracy to navigate the scheme in accordance with Rule 10 of the International Regulations for Preventing Collisions at Sea (72 COLREGS).

General principles for navigation in traffic separation schemes are as follows:

- 1. A ship navigating in or near a traffic separation scheme adopted by IMO shall in particular comply with Rule 10 of the 72 COLREGS to minimize the development of risk of collisions with another ship. The other rules of the 72 COLREGS apply in all respects, and particularly the steering and sailing rules if risk of collision with another ship is deemed to exist.
- 2. Traffic separation schemes are intended for use by day and by night in all weather, ice-free waters or under light ice conditions where no extraordinary maneuvers or assistance by icebreaker(s) is required.
- 3. Traffic separation schemes are recommended for use by all ships unless stated otherwise. Bearing in mind the need for adequate underkeel clearance, a decision to use a traffic separation scheme must take into account the charted depth, the possibility of changes in the sea-bed since the time of last survey, and the effects of meteorological and tidal conditions on water depths.
- 4. A deep water route is an allied routing measure primarily intended for use by ships which require the use of such a route because of their draft in relation to the available depth of water in the area concerned. Through traffic to which the above consideration does not apply should, if practicable, avoid following deep water routes. When using a deep water route mariners should be aware of possible changes in the indicated depth of water due to meteorological or other effects.
- 5. The arrows printed on charts merely indicate the general direction of traffic; ships should not set their courses strictly along the arrows
- 6. Vessels should, so far as practicable, keep clear of a traffic separation line or separation zone.
- 7. Vessels should avoid anchoring in a traffic separation scheme or in the area near its termination.
- 8. The signal "YG" meaning "You appear not to be complying with the traffic separation scheme" is provided in the International Code of Signals for appropriate use.
 - NOTE.-Several governments administering traffic separation schemes have expressed their concern to IMO about the large number of infringements of Rule 10 of the 72 COLREGS and the dangers of such contraventions to personnel, vessels and environment. Several governments have initiated surveillance of traffic separation schemes for which they are responsible

(30) TRAFFIC SEPARATION SCHEMES, AREAS TO BE AVOIDED, AND RECOMMENDED TRACKS. (Continued).

and are providing documented reports of vessel violations to flag states. As in the past, the U.S. Coast Guard will investigate these reports and take appropriate action. Mariners are urged to comply at all times with the 72 COLREGS and, in particular, Rule 10 when operating in or near traffic separation schemes.

- 9. Notice of temporary adjustments to traffic separation schemes for emergencies or for accommodation of activities which would otherwise contravene Rule 10 or obstruct navigation may be made in Notices to Mariners. Temporary adjustments may be in the form of a precautionary area within a traffic lane, or a shift in the location of a lane.
- 10. The IMO approved routing measures which affect shipping in or near U.S. waters are:

UNITED STATES TRAFFIC SEPARATION SCHEMES

In the Approaches to Portland, Maine

In the Approaches to Boston, Massachusetts

In the Approaches to Narragansett Bay, Rhode Island and Buzzards Bay, Massachusetts

Off New York

Off Delaware Bay

In the Approaches to Chesapeake Bay

In the Approaches to Galveston Bay

In the Approaches to Los Angeles-Long Beach

In the Santa Barbara Channel

Off San Francisco

In the Strait of Juan de Fuca and its Approaches

In Puget Sound and its Approaches

In Prince William Sound, Alaska

UNITED STATES AREAS TO BE AVOIDED

Off Washington Coast

In the region of Nantucket Shoals

At Louisiana Offshore Oil Port (LOOP) in the Gulf of Mexico

In the region of the Northwest Hawaiian Islands

Adjacent to Florida Keys

In the region of the Channel Islands, California

(Repetition NTM 1(30)02)

(IMO/USCG/NIMA)

(31) FIRING DANGER AREAS.

Firing and bombing practice exercises take place either occasionally or regularly in numerous areas established for those purposes along the coast of practically all maritime countries.

In view of the difficulty in keeping these areas up to date on the charts, and since the responsibility to avoid accidents rests with the authorities using the areas for firing and/or bombing practice, these areas will not as a rule be shown on NIMA charts.

National Ocean Service Charts show firing and bombing practice areas as defined by Code of Federal Regulations (Title 33, Part 334) in United States waters.

Any permanent aid to navigation that may be established to mark a danger area, or any target, fixed or floating, that may constitute a danger to navigation, will be shown on the appropriate charts.

Warning signals, usually consisting of red flags or red lights, are customarily displayed before and during the practice, but the absence of such warnings cannot be accepted as evidence that a practice area does not exist. Vessels should be on the lookout for local warnings and signals, and should, whenever possible, avoid passing through an area in which practice is in progress, but if compelled to do so should endeavor to clear it at the earliest possible moment.

(Repetition NTM 1(31)02) (NIMA/PTNM)

(32) LORAN INFORMATION.

Loran-C is a long-range hyperbolic radionavigation system using at least three land based radio transmitters (90 to 110 kHz frequency band) and receivers to allow mariners, aviators, and land based navigators to determine their position. Twenty-four Loran-C stations provide position information accurate to less than 0.25 nautical miles for the continental U.S. and most of Alaska. The U.S. Coast Guard operates Loran-C chains in cooperation with Canada and Russia. The accuracy of Loran-C will vary depending on capability of user equipment and location to transmitting stations. Loran-C nautical chart coverage can be found in the National Imagery and Mapping Agency Catalog of Maps, Charts, and Related Products, Part 2-Hydrographic Products, Nautical Charts and Publications (NIMA Stock Number CATP2V01U). Tabular information for Loran-C Rate Publications is no longer available.

(Supersedes NTM 1(32)02) (USCG/NIMA)

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD.

NOAA's National Marine Fisheries Service, Office of Protected Resources has advised that several species of endangered whales and endangered and threatened sea turtles inhabit areas along the Eastern Seaboard. Among these is the northern right whale, the world's most endangered large whale species, and collisions with ships are a significant source of mortality in this species. Collisions with whales can also result in significant damage to vessels, most commonly involving bent shafts or damaged propellers. Sea turtles are also susceptible to vessel collision because they surface to breathe and may rest at or near the surface. Nearshore habitat as well as natural and maintained channels may provide food, shelter and migration corridors to sea turtles. Sea turtles also associate with offshore oceanographic fronts and the warm water of the Gulf Stream.

Right whales are vulnerable to vessel collisions. As discussed below, right whales are seasonally abundant in waters off Florida, Georgia, New England and Canada. Right whale advisories and sighting locations are available for these areas via Coast Guard Broadcast Notice to Mariners, NAVTEX and other media.

There are about 300 northern right whales in the North Atlantic, and the species is listed as endangered under the Endangered Species Act. Right whales are highly vulnerable to vessel collisions because they can be difficult to spot, often do not move out of the way of approaching ships, and mate, rest, feed, and nurse their young at the surface.

Right whales occur along the east coast from calving areas off southern Georgia and northern Florida to feeding and mating areas off Massachusetts, in the Gulf of Maine and Bay of Fundy. In the Northeast United States, right whales occur seasonally in Cape Cod Bay (peak season: January through April), the Great South Channel (peak season: April through June), Stellwagen Bank (peak season: January through April), Jeffreys Ledge (peak season: July through mid-December), and the Bay of Fundy (Grand Manan Basin) (peak season: June through December). The first two areas are Federally-designated right whale critical habitats. Stellwagen Bank and Jeffreys Ledge are located in the Federally-designated Gerry E. Studds Stellwagen Bank National Marine Sanctuary. The Grand Manan Basin is a Canadian whale conservation area. Other whale species are present in spring and summer. Juvenile humpback and fin whales frequent near shore waters of the mid-Atlantic year round and are particularly abundant off Virginia and North Carolina in winter. Other whale species are present primarily in spring and summer. Sea turtles occur in coastal waters of Maine through Virginia in summer and fall (May through November).

In the Southeast United States, coastal waters off Georgia and northeastern Florida is the only known calving area for right whales. This area is a Federally-designated right whale critical habitat. The calving season is generally December through March. In March and April, right whales accompanied by calves migrate northward, often within 20 miles of the coast. Juvenile humpback and fin whales frequent near shore waters of the mid-Atlantic year round and are particularly abundant off Virginia and North Carolina during winter. Sea turtles occur year round from North Carolina through Florida; however, they are especially abundant during the spring and summer, just prior to and during the mating season.

Vessel operators should be particularly alert to avoid hitting or disturbing right whales. In seasons and in areas that right whales may occur, vessel operators should maintain a sharp lookout. Field identification cues include a broad back with no dorsal fin, irregular bumpy white patches (callosities) on the head, and a distinctive two-column V-shaped blow. They have paddle-like flippers nearly as wide as they are long, and a broad, deeply notched tail. Right whales reach lengths of 45 to 55 feet and are black in color.

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD. (Continued).

Two of the best documented ship strikes involved whales being struck and killed by vessels steaming at 15 knots. One vessel was steaming in clear weather and calm seas, just before dusk, and well off the Mid-Atlantic coast, when a small group of whales surfaced about 50 yards off the starboard bow. A juvenile in the group was struck by the ship's propellers and killed. The second vessel was steaming in thick fog, inshore off the southeast coast in early January, when it struck a juvenile, apparently dead-on.

Seasonal right whale advisories and sighting reports are broadcast periodically for these areas by Coast Guard Broadcast Notice to Mariners, NAVTEX, NOAA Weather Radio, Cape Cod Canal Vessel Traffic Control, the Bay of Fundy Vessel Traffic Control, and other means. As weather and conditions permit, a dedicated seasonal program of over flights and vessel surveys are done in Cape Cod Bay and the Great South Channel and from the Savannah River, Georgia south to Sebastian Inlet, Florida. However, many right whales go undetected. Consult *Coast Pilots* for the U.S. East Coast and nautical charts for information on the boundaries of right whale critical habitat and precautionary measures that mariners can take to reduce the likelihood of ship strikes.

To address the problem of ship strikes, NOAA and the U.S. Coast Guard have established a Mandatory Ship Reporting System in the above-mentioned right whale critical habitats. As of July 1, 1999, the system requires all commercial ships 300 gross tons or greater to report to a shore-based station when entering the two habitat areas and provide their name, call sign, course, speed, location, destination and route (see following table). In return, ships will receive an automated message indicating that the ship is entering an area critical for right whales, that whales are likely to be in the area and that ship strikes are a serious threat to whales and may cause damage to the ship. Advice on precautionary measures mariners can take to reduce the possibility of hitting right whales and recent sighting locations are also included. The reporting system requires reporting only and will affect no other aspect of vessel operation. For information about how and when to report, consult Coast Guard Local Notice to Mariners (No. 27/99) and an interim final rule (64 FR 29229) and a final rule (66 FR 5806, 20 November 2001) which provides the regulations. Please note that a change has been made in the reporting procedures since publication of the interim final rule. Vessels must now include an additional paragraph (M), before paragraph (A), which provides the vessel's Inmarsat number. Additional information on the revised reporting procedures may be obtained at the following website:

http://www.nmfs.noaa.gov/prot res/PR2/Conservation and Recovery Program/msr/msrhome.html

This table identifies requirements for reporting to the mandatory ship reporting system. The change noted above in the requirements is indicated in the first line.

Paragraph	Function	Information Required
System name	System Identifier	Ship reporting system (WHALESNORTH or WHALESSOUTH).
M	Inmarsat number	Vessel Inmarsat number.
A	Ship	Vessel name and call sign.
В	Date, time, and month of report	Six digit group giving day of month and time, single letter indicating time zone, and three letters indicating month.
Е	True course	3-digit indicating true course.
F	Speed in knots and tenths	3-digit group indicating knots and tenths
Н	Date, time, and point of entry into system	Date and time expressed as in (B) and latitude and longitude expressed as a four digit group giving latitude, the letter N indicating north, followed by a /, a five digit group giving longitude, and the letter W indicating west.
I	Destination and ETA	Name of port and arrival time expressed as in (B).

I-1,24

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD. (Continued).

Paragraph	Function	Information Required
L	Route information	Route information should be reported as direct rhumbline to port (RL) and intended speed or a series of way points (WP). Vessels reporting waypoints should include latitude and longitude, expressed as in (H), and intended speed between waypoints. For vessels transiting within a traffic separation scheme (TSS), give only the WP on entry and departure of TSS.

The National Marine Fisheries Service recommends the following precautionary measures be taken to reduce the risk of colliding with northern right whales when transiting right whale critical habitat:

- 1. Consult with local pilots' associations for precautionary measures when transiting right whale critical habitat 1. As soon as possible prior to entering right whale critical habitat areas.
- 2. As soon as possible prior to entering right whale critical habitat, check Coast Guard Broadcast Notice to Mariners, NAVTEX, the Coast Pilot, local pilots, and other sources for recent right whale sighting reports. In the northern critical habitat area, mariners should also check NOAA Weather Radio, Cape Cod Canal Vessel Traffic Control, and the Bay of Fundy Vessel Traffic Control.
- 3. To the extent possible, review right whale identification materials and maintain a sharp watch with lookouts familiar with spotting whales.
- 4. When planning passage through a right whale critical habitat, attempt to avoid night-time transits and, when practical, minimize the distance traveled through the area. Anticipate delays due to whale sightings. When planning passage along the southeast coast during calving season (between 15 November and 15 April), attempt to avoid transit through critical habitat area by remaining offshore, and minimize travel distances through the critical habitat when entering or leaving port. When the ability to spot whales is limited (e.g., night, fog, rain), reduced speed may minimize the risk of colliding with a right whale.
- 5. Traveling at speeds in excess of 14 knots may increase the likelihood of striking a whale. It is recommended that where possible, and when trip planning allows, ships travel less than 14 knots.
- 6. If a right whale is reported within 20 nautical miles of a ship's position, post a lookout familiar with spotting whales, exercise caution, and proceed at a safe speed, bearing in mind that reduced speed may minimize the risk of a ship strike.
- 7. Do not assume right whales will move out of your way. Right whales are generally slow moving and seldom travel faster than 5-6 knots. Consistent with safe navigation, maneuver around observed right whales or recently reported sighting locations. Federal regulation prohibits the approach within 500 yards of any right whale anywhere in the U.S. Atlantic EEZ. The same regulations have been implemented in the State of Massachusetts.
- 8. Any whale accidentally struck, any dead whale, or any whale observed entangled in fishing gear should be reported immediately to the Coast Guard on VHF channel 16 noting the precise location, date, and time of the accident or sighting. In the event of a strike or sighting, amplifying information such as the speed of the vessel, size of the vessel, water depth, wind speed and direction, description of the impact, fate of the whale, species, and size should be reported if known.
- 9. Right whales can occur anywhere along the east coast. Therefore, mariners are urged to exercise prudent seamanship with regard to right whales at all times when transiting the U.S. East Coast.

(Supersedes NTM 1(33)02) (NOAA)

(34) REPORTING DEPTH INFORMATION.

The many ships presently equipped with reliable depth recorders constitute a potential wealth of sounding data desired by charting agencies for the purpose of confirming charted depths or charting heretofore unknown depths. While oceanographic survey vessels remain the primary source of bathymetric data, depth recordings submitted by navy, coast guard and merchant vessels will make an important contribution to the vital task of charting the oceans.

Mariners are encouraged to obtain and report soundings whenever bridge routine and equipment capabilities will allow. The American Practical Navigator (Bowditch) (NVPUB9), Sections 2911-2916 describes the bathymetric requirements and provides some guidance for observing and reporting sonic soundings. However, soundings must be correlated to positions and accompanied by supportive data such as:

(34) REPORTING DEPTH INFORMATION. (Continued).

- (a) Detailed position/time information.
- (b) Mariner's own evaluation of positional accuracy (type of navigational system used and frequency of fixes).
- (c) Ship's course and speed with time of changes noted.
- (d) Echogram scales in use and graduated scales provided, with time of scale changes.
- (e) Draft of vessel and whether zero reference is corrected for draft.
- (f) Regular annotations of date/time marks on echograms to enable correlation with positions.
- (g) State of the tide and weather conditions.
- (h) Other related information considered appropriate.

An uncharted depth of 15 fathoms/28 meters or less should be considered an urgent danger to navigation, and should be reported via radio without delay. Follow up with substantiating evidence, including the echogram, track chart and/or position log and all relevant navigational data and forward to NIMA at the earliest opportunity.

Charts submitted to amplify a sounding report will be replaced, on request, with a new chart, except that foreign charts will be replaced with the equivalent U.S. chart, if available. Data reports and charts should be sent to the National Imagery and Mapping Agency, Attn: PTNM, MS D-44, 4600 Sangamore Road, Bethesda, MD 20816-5003, either directly by mail or via any U.S. Consulate.

(Supersedes NTM 1(34)02) (NIMA/PTNM)

(35) WARNING-MINED AREAS.

Mines of various types and ages pose a threat to navigation in many parts of the world. Once mined, an area can never be certified to be completely danger free. Sweeping produces only statistical probability of protection. Mines may still remain, having failed to respond to orthodox sweeping methods. Some swept areas have not been covered by modern surveys and may contain uncharted wrecks, shoals or other dangers to navigation.

Prudent seamanship in former mine fields, swept channels and swept areas includes:

- (a) Transit using only established routes or buoyed channels.
- (b) Avoid shallow water. Sweeping techniques often preclude sweeping in restricted waters.
- (c) Avoid fishing, trawling or any other form of submarine or seabed activity.
- (d) Mariners are advised to anchor with caution only in established anchorages.
- (e) Consult local authorities and regulations.

(Repetition NTM 1(35)02) (U.S. NAVY)

(36) MINED AREAS REPORTED.

Minefields-Tarabulus, Libya.

In early 1973 Libya reported that the following areas had been mined. Although these areas are probably no longer a mine threat, they still represent a potential hazard to navigation. The areas reported by Libya are bounded by lines joining the following positions:

- 1. (a) 32°52'48"N., 13°24'30"E.
 - (b) 32°57'42"N., 13°24'30"E.
 - (c) 32°57'42"N., 13°18'00"E.
 - (d) 32°53'48"N., 13°22'18"E.

- 2. (a) 32°53'42"N., 13°20'36"E.
 - (b) 32°55'54"N., 13°18'00"E.
 - (c) 32°55'54"N., 13°15'00"E.
 - (d) 32°54'30"N., 13°15'00"E.

(Repetition NTM 1(36)02) (U.S. NAVY)

(37) MINESWEEPING-CAUTION-ATTENTION IS CALLED TO THE FOLLOWING INSTRUCTIONS.

Minesweeping Operations:

- (a) United States vessels engaged in minesweeping operations or exercises are hampered to a considerable extent in their maneuvering powers. Other Vessels Must Keep Clear of Minesweepers (COLREGS 1972).
- (b) With a view to indicating the nature of the work on which they are engaged, these vessels will show the signals hereinafter mentioned. For the public safety, all other vessels, whether steamers or sailing craft, must endeavor to keep out of the way of vessels displaying these signals and not approach them inside the distances mentioned herein, especially remembering that it is dangerous to pass between the vessels of a pair or group sweeping together.
- (c) All vessels towing sweeps are to show:
 - BY DAY.-A black ball at the fore mast and a black ball at the end of each fore yard.
 - BY NIGHT.-All around green lights instead of the black balls, and in a similar manner.
- (d) Vessels or formations showing these signals are not to be approached nearer than 1,000 meters on either beam and vessels are not to cross astern closer than 1,000 meters. Under no circumstances is a vessel to pass through a formation of minesweepers.
- (e) Minesweepers should be prepared to warn merchant vessels which persist in approaching too close by means of any of the appropriate signals from the International Code of Signals.
- (f) In fog, mist, falling snow, heavy rainstorms, or any other conditions similarly restricting visibility, whether by day or night, minesweepers while towing sweeps when in the vicinity of other vessels will sound signals for a vessel towing (1 prolonged blast followed by 2 short blasts).

Helicopters Conducting Minesweeping Operations:

- (a) The United States is increasingly employing helicopters to conduct minesweeping operations or exercises. When so engaged, helicopters, like vessels, are considerably hampered in their ability to maneuver. Accordingly, surface craft approaching helicopters engaged in minesweeping operations should take safety precautions similar to those described in (b) and (d) above with respect to minesweeping vessels.
- (b) Helicopters towing minesweeping gear and accompanying surface escorts, if any, will use all available means to warn approaching ships of the operations or exercises being conducted. Also, measures will be taken where practicable to mark or light the gear or objects being towed.
- (c) Minesweeping helicopters are equipped with a rotating beacon which has selectable red and amber modes. The amber mode is used during towing operations to notify/warn other vessels that the helicopter is towing. While towing, the helicopter's altitude varies from 15 to 95 meters above the water and speeds vary from 0 to 30 knots.
- (d) General descriptions and approximate dimensions for towed minesweeping gear currently being used in conjunction with helicopters are as follows:
 - (1) Mechanical sweep gear consisting, in part, of large lengths of submerged cables and explosive cutters. The only items normally visible on the surface are three to five international orange floats, depending upon the quantity of gear in use, which generally define the dimensions of the tow. The maximum width is 100 meters and the maximum distance behind the helicopter is 600 meters.
 - (2) Acoustical sweep device weighing approximately 70 pounds. This device is towed behind the helicopter on a 250-meter orange polypropylene tow cable. When dead in the water, the gear will rise to the surface, supported by a yellow float.
 - (3) A hydrofoil platform containing equipment used for magnetic influence sweeping. The platform is towed on the end of a 140-meter cable and trails electrodes in the water which extend 185 meters behind the platform. Very often, the aforementioned acoustical sweep device is towed in conjunction with this platform by attaching it to the end of one of the electrodes by a 30-meter polypropylene tow line. In this configuration, the total length of the tow is 215 and 350 meters, respectively, behind the hydrofoil platform and helicopter. Special care must be exercised when crossing astern of the hydrofoil platform as the towed cable is barely visible, and the attached acoustic device is submerged just beneath the surface and is not visible to surface vessels.
 - (4) Helicopters employed in minesweeping operations and their tows may function during the day, and in various types of weather conditions. The major danger to any surface vessel is getting the various cables wrapped in its screws. Small craft also are subject to the risk of collision with the hydrofoil platform.

(Repetition NTM 1(37)02) (U.S. NAVY)

(38) UNITED STATES-EXPLOSIVE ORDNANCE-WARNING-GENERAL.

The continental shelf of the United States contains many forms of unexploded ordnance (military weapons), and while some ordnance hazard areas are designated, many unexploded ordnance locations are not known. The types most likely to be encountered are underwater ordnance (weapons) such as torpedoes, mines, depth charges, and aerial bombs, but other ordnance items may be found. In general, any metallic object having fins, vanes, propellers, horns, or possibly plates screwed or bolted to an external surface should be regarded as dangerous. This warning is published for all shipmasters, trawlers, fishermen, divers or persons conducting operations on or near the ocean bottom, and provides instructions on the action to be taken when ordnance items or suspicious objects are encountered:

- (1) OBJECTS SNAGGED OR NETTED: Any object which cannot be immediately identified as a non-explosive (inert) item MUST BE TREATED AS AN EXPLOSIVE ITEM. If in any doubt about its identity, TREAT IT AS EXPLOSIVE. Nonexplosive naval ordnance items such as practice torpedoes and practice mines will normally be painted bright orange, for ready identification. Any object which is not painted orange may be dangerous and possibly can explode if brought on board or bumped in any way. If an object is brought to the surface of the water and it cannot be immediately identified as an inert item, DO NOT ATTEMPT TO BRING IT ON BOARD OR ALONGSIDE. If possible, release the object immediately and radio the nearest Navy or Coast Guard activity giving position and description of the object. If the object cannot be released, or freed by cutting net or line, the following actions are advised:
 - (a) stream object as far aft as possible;
 - (b) notify nearest Navy or Coast Guard activity and stand by for instructions or help;
 - (c) position crew at forward end of vessel, keeping deckhouse between them and the object astern; exposed personnel should remain under cover if possible;
 - (d) maintain steerageway as necessary to stay in the area until help or instructions arrive.

If unable to stand by while waiting for instructions because of deteriorating weather or sea conditions or other uncontrollable factors, keep the Navy or Coast Guard activity informed of your vessel's position AND AVOID POPULATED AREAS, OTHER VESSELS, OR SHORE- OR SEA-BASED STRUCTURES.

- (2) OBJECTS BROUGHT ON BOARD: If a suspected explosive object is not detected until trawl or net contents have been discharged on board the vessel, take the following actions:
 - (a) avoid any bump or shock to the object;
 - (b) secure it in place against movement;
 - (c) keep it covered up and wet down;
 - (d) radio nearest Navy or Coast Guard activity and standby for instructions.

If unable to stand by while waiting for instructions because of deteriorating weather or sea conditions or other uncontrollable factors, keep the Navy or Coast Guard activity informed of your vessel's position AND AVOID POPULATED AREAS, OTHER VESSELS, OR SHORE-OR SEA-BASED STRUCTURES.

- (3) FLOATING OBJECTS: If a floating object cannot be readily identified as non-explosive, IT MUST BE CONSIDERED TO BE EXPLOSIVE. DO NOT APPROACH, OR ATTEMPT TO RECOVER OR BRING ON BOARD. Report location immediately to the nearest Navy or Coast Guard activity and warn all other ships or craft in the vicinity. Try to keep the object in sight until instructions are received.
- (4) NAVAL MINES: Naval mines constitute a risk to shipping, fishing, underwater exploration, and other maritime interests. The different types of mines, the conditions under which they are most likely to be sighted, and the recommended action are as follows:

FLOATING MINES- Consider all floating mines to be live and dangerous. DO NOT TOUCH OR APPROACH. The possibility of drifting mines being camouflaged with seaweed or other innocent appearing floating objects should be borne in mind and avoiding action taken. The following procedures and precautions are recommended: GROUND MINES- ON THE HIGH SEAS. Report the location of the mine by the most rapid means as soon as circumstances permit, this report is to be similar to that required for any hazard to navigation (See para 5). Mines sighted in anchorage areas or other patrolled water should, if circumstances permit, be kept under observation and reported to the nearest Navy or Coast Guard activity (See para 5). The recovery or handling of the mine should be done only by qualified explosive ordnance disposal personnel. If a mine is drifting down on a vessel at anchor and it cannot be avoided by other means, it is recommended that a stream of water from a fire hose be played near the mine to force it away from the vessel. WARNING: Mines may explode if a stream of water is played near them. Exposed personnel should remain under cover until danger is past.

(38) UNITED STATES-EXPLOSIVE ORDNANCE-WARNING-GENERAL. (Continued).

MOORED MINES- Moored mines may sometimes be seen several feet under the surface if the water is clear, or the mine may be floating on the surface. Often several mines or even a long row of the mines can be seen. Usually the sighting of one or more such mines indicates the presence of a minefield. Approaching the general vicinity of such mines is dangerous and should not ordinarily be undertaken by vessels. When mines are sighted, the location of the mines should be determined as accurately as possible, the area should be buoyed if this is feasible, all ships in the vicinity should be warned, and the appropriate Navy or Coast Guard activity should be notified immediately. Ground mines are normally laid in water so deep that they will not be seen unless the water is very clear. However, in very clear water with a hard white sand bottom, even a camouflaged mine can often be located because of the long, regular shadow it casts. The sighting of such a mine may indicate a minefield in the neighborhood. Approaching the general vicinity of such a mine is very dangerous. If a mine is sighted, the location should be determined as accurately as possible and buoyed, all ships in the vicinity should be warned, and the appropriate Navy or Coast Guard activity should be notified immediately.

BEACHED MINES- Any of the above types of mine may be found on the beach, either thrown up by the waves or mislaid by aircraft. Any mine found beached or floating close inshore should be reported at once to the nearest Navy, Coast Guard, military, or civil authority, and the mine should be kept under guard until the arrival of responsible authorities. No person except qualified explosive ordnance disposal personnel should be allowed closer than 400 yards.

- (5) REPORTING OF SUSPICIOUS OBJECTS RESEMBLING MINES: Ships frequently report objects resembling mines but give insufficient information to properly evaluate the reports. As a result, needless time and expense is incurred only to find that they are not mines but other floating objects. HOWEVER, VESSELS SHOULD NOT ATTEMPT TO RECOVER OBJECTS RESEMBLING MINES OR PASS CLOSE ABOARD FOR POSITIVE IDENTIFICATION-KEEP WELL CLEAR. Since mines are a danger to life and property at sea, masters of ships sighting unidentified or suspicious objects are requested to furnish the following information to the nearest Navy or Coast Guard radio station or activity:
 - (a) Position of object, and how closely it was approached.
 - (b) Size, shape, condition of painting, and the presence of marine growth.
 - (c) Whether or not horns or rings are attached.
 - (d) Whether or not definite identification possible.

(Repetition NTM 1(38)02)

(U.S. NAVY)

(39) CAUTION-OIL WELL STRUCTURES IN WATERS CONTIGUOUS TO THE U.S. AND ITS TERRITORIES.

Caution should be exercised when navigating in the waters contiguous to the U.S. and its territories particularly in the Gulf of Mexico, Santa Barbara Channel, California, and Cook Inlet, Alaska, in order to avoid collision with oil well structures and their associated mooring piles, anchor and mooring buoys, etc.

In general, oil well structures can be identified at night by the display of one or more quick flashing white or red lights, however, ships can expect to encounter unlighted structures as well. Structures may be equipped with a fog signal consisting of a horn sounding one 2-second blast every 20 seconds. Submerged wells may be marked by lighted or unlighted buoys.

Shipping safety fairways have been established through the concentration of oil wells in the Gulf of Mexico and Santa Barbara Channel. Mariners are encouraged to use these fairways and should avoid anchoring within a safety fairway. Certain areas adjacent to shipping safety fairways have been charted as fairway anchorages.

(Repetition NTM 1(39)02)

(USCG)

(40) CAUTION REGARDING APPROACH OF SINGLE VESSELS TOWARD NAVAL FORMATIONS AND CONVOYS.

A formation of warships or a convoy is more difficult to maneuver than a single ship. Therefore, the attention of masters is called to the danger of all concerned which is caused by a single vessel approaching a formation of warships or convoy so closely as to involve risk of collision, or attempting to pass ahead of, or through such a formation or convoy. All ships are therefore cautioned to employ the customary manners of good seamanship and, where there is ample sea room, adopt early measures to keep out of the way of a formation of warships or convoy. The fact that in the interests of safety a single vessel should keep out of the way of a formation or convoy does not entitle vessels sailing in company to proceed without regard to

(40) CAUTION REGARDING APPROACH OF SINGLE VESSELS TOWARD NAVAL FORMATIONS AND CONVOYS. (Continued).

the movements of the single vessel. Vessels sailing in formation or convoy should accordingly keep a careful watch on the movements of any single vessel approaching the squadron or convoy and should be ready, in the case the single vessel does not keep out of the way, to take such action as will best aid to avert collision.

(Repetition NTM 1(40)02) (U.S. NAVY)

(41) NATIONAL IMAGERY AND MAPPING AGENCY DISTRIBUTION SYSTEM.

GENERAL INFORMATION AND CUSTOMER ORDERING GUIDANCE.

DEFENSE SUPPLY CENTER RICHMOND PRODUCT CENTER 9 (DSCR-JN).

The DSCR Product Center 9 Branch (DSCR-JNB), is available to assist customers during normal duty hours, Monday through Friday, 0630 to 1700 EST. After hours messages are recorded for processing on the next business day. The office can respond to inquires regarding catalog usage, ordering procedures, product availability, disposition of excess stock, subscriptions and many other GGI&S related activities and interests.

Mailing Address:

Defense Supply Center Richmond

ATTN: DSCR-JNB

8000 Jefferson Davis Highway Richmond, VA 23297-5335

Message Address:

DSCR RICHMOND VA//DSCR-JNB//

DSN: 695-6500; Fax: 695-6510

Tel: (804) 279-6500; Fax: (804) 279-6510

Toll Free: 1-800-826-0342 E-mail: pc9@dscr.dla.mil Website: www.dscr.dla.mil/pc9/

After Normal Duty Hours and Crisis Support

Pager-DSCR-JN Duty Officer: Tel. (804) 279-6500

DSN 695-6500

NATIONAL IMAGERY AND MAPPING AGENCY (NIMA) CUSTOMER HELP DESK.

The NIMA Customer Help Desk is available to assist customers with general questions about NIMA products and services. U.S. customers may call from 0600 to 1800 CST, Monday through Friday, toll free at 1-800-455-0899. U.S. and OCONUS customers may call DSN: 490-5032; Tel: (314) 260-5032: DSN: Fax: 490-5024, Tel: Fax: (314) 260-1128; (E-mail: chdesk@nima.mil).

OBTAINING NIMA NAUTICAL CHARTS AND PUBLICATIONS.

DoD customers should refer to the ordering procedures contained in the applicable volume or bulletin of the NIMA Catalog. Requests for NIMA products from non-DoD U.S. Government Agencies are on a reimbursable basis.

(1) CHARTS

As of 1 October 1992, the public sale of NIMA aeronautical and nautical charts and related publications was transferred to the U.S. Department of Transportation, Federal Aviation Administration, National Aeronautical Charting Office (NACO).

Public sale customers may purchase NIMA aeronautical and nautical charts from:

FAA Distribution Division, AVN-530 National Aeronautical Charting Office 6303 Ivy Lane, Suite 400 Greenbelt, MD 20770-1479

(41) NATIONAL IMAGERY AND MAPPING AGENCY DISTRIBUTION SYSTEM. (Continued).

Telephone: 1-800-638-8972 (Within the U.S. only)

Telephone: (301) 436-6829 Fax: (301) 436-0015

E-Mail: 9-AMC-Chartsales@faa.gov

Website: http://naco.faa.gov

(2) PUBLICATIONS

As of 1 October 2000, the public sale of all new editions of NIMA nautical publications was transferred to the U.S. Government Printing Office (GPO) for both wholesale and retail purposes. All subsequent wholesale agreements for NIMA nautical publications must be established with the GPO Superintendent of Documents (GPO SuDocs). Publications may be ordered any time through the U.S. Government Online Bookstore at http://bookstore.gpo.gov or by Fax at (202) 512-2250, or by telephone Monday through Friday from 7:30 a.m. to 4:30 p.m. ET at (202) 512-1800. Mail orders including payment are sent to:

U.S. Government Printing Office Superintendent of Documents P.O. Box 371954 Pittsburgh, PA 15250-1954 (Supersedes NTM 1(41)02)

(NIMA/NOAA)

(42) INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO).

The International Hydrographic Organization (IHO) was originally established in 1921 as the International Hydrographic Bureau (IHB), the present name having been adopted in 1970 as a result of a revised international agreement between the member nations. However, the former name, International Hydrographic Bureau, was retained for the IHO's administrative body of three Directors and a small Staff at the Organization's headquarters in Monaco.

The IHO sets forth hydrographic standards as they are agreed upon by the member nations. All Member States are urged and encouraged to follow these standards in their surveys, nautical charts and publications. As these standards are uniformly adopted, the products of the world's hydrographic and oceanographic offices become more uniform. Much has been done in the field of standardization since the Bureau was founded.

The principal work undertaken by the IHO is:

- (a) To bring about a close and permanent association between national hydrographic offices;
- (b) To study matters relating to hydrography and allied sciences and techniques;
- (c) To further the exchange of nautical charts and documents between hydrographic offices of Member Governments;
- (d) To circulate the appropriate documents;
- (e) To tender guidance and advice upon request, in particular to countries needing technical assistance while engaged in setting up or expanding their hydrographic service;
- (f) To encourage coordination of hydrographic surveys with relevant oceanographic activities;
- (g) To extend and facilitate the application of oceanographic knowledge for the benefit of navigators;
- (h) To cooperate with international organizations and scientific institutions which have related objectives.

During the 19th century, many maritime nations established hydrographic offices to provide means for improving the navigation of naval and merchant marine vessels by providing nautical publications, nautical charts and other navigational services. Non-uniformity of hydrographic procedures, charts and publications was much in evidence. In 1889, an International Marine Conference was held at Washington, D.C., and it was proposed to establish a "permanent international commission." Similar proposals were made at the sessions of the International Congress of Navigation held at St. Petersburg in 1908 and again in 1912.

In 1919 the hydrographers of Great Britain and France cooperated in taking the necessary steps to convene an international conference of hydrographers. London was selected as the most suitable place for this conference and on July 24, 1919, the First International Conference opened, attended by the hydrographers of 24 nations. The object of the conference was clearly stated in the invitation to attend. It read, "To consider the advisability of all maritime nations adopting similar methods in the preparation, construction, and production of their charts and all hydrographic publications; of rendering the results in the most

(42) INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO). (Continued).

convenient form to enable them to be readily used; of instituting a prompt system of mutual exchange of hydrographic information between all countries; and of providing an opportunity for consultations and discussions to be carried out on hydrographic subjects generally by the hydrographic experts of the world." In general, this is still the purpose of the International Hydrographic Organization. As a result of the conference, a permanent organization was formed and statutes for its operations were prepared. The International Hydrographic Bureau, now the International Hydrographic Organization, began its activities in 1921 with 18 nations as members. The Principality of Monaco was selected as the headquarters because of its easy communication with the rest of the world and also because of the generous offer of Prince Albert I of Monaco to provide suitable accommodations for the Bureau in the Principality. The IHO, including the 3 Directors and their staff, is housed in its own headquarters which were built and are maintained by the Government of Monaco.

Officers and enlisted men of naval vessels and masters, mates or navigating personnel of merchant ships, including pleasure craft, are welcome to visit the Bureau's Office at 7 Avenue President J.F. Kennedy, Monte-Carlo.

The works of the IHO are published in both French and English and distributed through various media. Many of the publications are available to the general public, and a discount of 30 percent is offered to naval or merchant marine officers of any of the member nations. Inquiries as to the availability of the publications should be made directly to the "International Hydrographic Bureau, 7 Avenue President J.F. Kennedy, Monte-Carlo, Monaco."

In order that the work of the IHO may be reviewed and future plans developed, conferences are held every five years. They are attended by delegates from member nations.

Presently, the following nations are Member States of the International Hydrographic Organization:

Algeria Germany Philippines Argentina Greece Poland Australia Guatemala Portugal Bahrain Iceland *Oatar Bangladesh India Republic of Korea Belgium Indonesia *Slovenia

Brazil Iran South Africa *Bulgaria Italy Russia *Burma Jamaica Singapore Canada Spain Japan Chile Sri Lanka *Kuwait China Suriname Malaysia Colombia *Mauritania Sweden Croatia *Mauritius Syria Cuba *Mexico Thailand Cyprus Monaco Tonga

Democratic People's Republic of Morocco Trinidad and Tobago

Korea

Democratic Republic of the CongoMozambiqueTunisiaDenmarkNetherlandsTurkeyDominican RepublicNew ZealandUkraine

Ecuador Nigeria United Arab Emirates Egypt Norway United Kingdom Estonia Oman **United States** Fiji Pakistan Uruguay Finland Papua New Guinea Venezuela France Peru Yugoslavia

* Membership of IHO pending (Supersedes NTM 1(42)02)

(IHO)

(43) INTERNATIONAL DISTRESS SIGNALS.

- 1. All seamen should be familiar with the international distress signals and procedures, both for recognition purposes and for self-reliance in the event of distress where captain and officers may have been incapacitated.
- 2. Short range distress signals, limited to range of visibility or audibility are:
 - (a) "SOS" signal made by any audio or visual means.
 - (b) International Code of Signals "NC".
 - (c) Hoisting any square flag with a ball or anything resembling a ball, above or below it.
 - (d) Flames made visible (as a burning oil barrel).
 - (e) A rocket parachute flare or hand held flare showing a red light.
 - (f) Rockets or shells, throwing red stars fired one at a time at short intervals.
 - (g) Orange smoke, as emitted from a distress flare.
 - (h) A gun or other explosive signal fired at intervals of about one minute.
 - (i) A continuous sounding of any fog-signal apparatus.
 - (j) Slowly and repeatedly raising and lowering arms outstretched to each side.
- 3. Radio distress signals via radiotelephone:
 - (a) For a MF/HF radiotelephone tuned to 2182 kHz, send the radiotelephone alarm signal (if available).
 - (b) Set equipment to the MF distress frequency 2182 kHz (or VHF-FM radiotelephone set to Channel No. 16 (156.800 MHz), and transmit the spoken word "MAYDAY" repeated three times followed by "this is" and then the name of the vessel repeated three times. Do not wait for acknowledgment. Continue by stating the nature of the distress; the kind of assistance desired; the position; and any other information which might facilitate the rescue. Wait a few moments for acknowledgment. Then, if none, repeat the entire distress message until acknowledged. Speak the distress message clearly and unhurried. Non-acknowledgment is not definite indication that the message was not received by someone.
- 4. For radio distress signals via Inmarsat ship earth station:
 - (a) Select either the telex or telephone mode of operation and place a distress call to the nearest rescue coordination center (RCC) in accordance with the ship-earth station manufacturer's instructions. Note that communications over the satellite terminal may be interrupted during a ship casualty if terminal and antenna are not connected to a source of emergency power.
 - (b) Section 359 (d) of the United States Communications Act provides that: "No charge shall be made by any ship or station in the mobile service of the United States for the transmission of distress messages and replies thereto in connection with situations involving the safety of life and property at sea." The FCC interprets this to apply equally to maritime mobile satellite systems.
- 5. For radio distress signals via digital selective calling: The distress call should be composed to include ship's position information, the time at which the position was taken, and the nature of distress. If the DSC radio is connected to a navigation receiver, position and time-of-position should already be included. The distress call should be transmitted on VHF Channel 70 (156.525 MHz), 2187.5 kHz, or the HF frequencies 4207.5, 6312, 8414.5, 12577 and 16804.5 kHz. An acknowledgment of the distress call should be received on the DSC frequency. Once an acknowledgment has been received, the radio distress procedures via radiotelephone (above) should be followed on the associated voice channel: VHF Channel 16 (156.800 MHz), 2182, 4125, 6215, 8291, 12290 and 16420 kHz. For DSC distress calls on VHF Channel 70 and 2187.5 kHz, the radio distress procedures via radiotelephone should be followed on the associated voice channel if an acknowledgment is not received after a reasonable time (30 sec to 5 min).
- 6. Simple to follow instructions for the operation of auto alarms, radiotelephone, DSC and satellite communications equipment should be conspicuously posted in the radio rooms of all ships. Procedures outlined here are purposely brief. Complete information on emergency radio procedures is contained in Chapter 4 of Radio Navigational Aids (Pub. 117). The nearest U.S. Coast Guard rescue coordination center MUST be notified whenever an inadvertent distress alert is transmitted.

(Supersedes NTM 1(43)02) (IMO/USCG)

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE (WWNWS).

The Worldwide Navigational Warning Service (WWNWS) was established in 1977 through the joint efforts of the International Hydrographic Organization (IHO) and the International Maritime Organization (IMO). The WWNWS is a coordinated global service for the promulgation by radio of information on hazards to navigation which might endanger international shipping.

The basic objective of the WWNWS is the timely promulgation by radio of information of concern to the ocean-going navigator. Such information includes the following: failure and/or changes to major navigational aids, newly discovered wrecks or natural hazards including icebergs in or near main shipping lanes, hazardous military operations and areas where search and rescue, anti-pollution operations and cable-laying or other underwater activities are taking place.

Because of the wide ocean coverage of the WWNWS broadcasts, consideration is also being given to its selective use to augment other services for promulgating information concerning overdue and missing ships and aircraft.

For purposes of the WWNWS, the world has been divided into 16 Navigation Warning Areas (NAVAREAS) (see graphic page, I-1.37). Within each NAVAREA one national authority, designated the Area Coordinator, has assumed responsibility for the coordination and promulgation of warnings. Designated "National Coordinators" of other coastal states in a NAVAREA are responsible for collecting and forwarding information to the Area Coordinator. In the Baltic, a Sub-Area Coordinator has been established to filter information prior to passing to the Area Coordinator.

Coordinators are responsible for the exchange of information as appropriate with other coordinators, including that which should be further promulgated by charting authorities in Notice to Mariners.

The language used is English, although warnings may also be transmitted in one or more of the official languages of the United Nations.

Broadcast schedules appear in an Annex to the International Telecommunication Union "List of Radio-determination and Special Service Stations", Volume II, and in the lists of radio signals published by various hydrographic authorities (in the U.S., Pub. 117). Transmissions usually occur frequently enough during the day to fall within at least one normal radio watch period, and the information is repeated with varying frequency as time passes until either the danger has passed or the information on it has appeared as a Notice to Mariners. Transmission of information over the WWNWS will continue to be affected by the advent of services such as NAVTEX.

A document giving guidance and information on the WWNWS is available free from the International Hydrographic Bureau, 7 Avenue President J.F. Kennedy, B.P. 445 Monte Carlo, Monaco.

The comments and recommendations of mariners are earnestly desired to allow improvements to be made both to individual NAVAREA broadcasts and to the overall system. To facilitate such comments, a post card (individual broadcast) report form and a single page (multiple broadcast) report form have been prepared and are available from the IHB. The reporting forms are preaddressed to the Chairman of the IHO Commission which oversees the WWNWS, but may be forwarded to a specific Area Coordinator at the mariner's option. The report forms request, in addition to general comments, information on the date, ship's position, station (with call sign) monitored, and the broadcast's scheduled frequency, language used, adherence to broadcast schedule (frequency and time) and quality of signal (strength, readability). Cooperation of the mariner in reporting such information is urged.

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE. (WWNWS). (Continued).

NAVAREA I (United Kingdom) United Kingdom Hydrographic Office

Admiralty Way Taunton, Somerset

TA1 2DN, United Kingdom

Phone: 44 1823 723315, Fax: 44 1823 322352

Telex: 46464 HYDRNW G

E-mail: rnwuser@ukhorn.u-net.com Website: www.hydro.gov.uk

Baltic Sea Sub-Area NAVAREA I (Sweden)

Swedish Maritime Administration

BALTICO

S-601 78 Norrkoping, Sweden

Phone: 46 11 19 10 45

Fax: 46 11 23 89 45 (07-15 UTC) 46 8 601 79659 (15-07 UTC) Telex: 64320 BALTICO S (07-15 UTC) 16060 STORDO S (15-07 UTC)

E-mail: ntm.baltico@sjofartsverket.se

Website: www.sjofartsverket.se

NAVAREA II (France) Monsieur le Directeur

EPSHOM

13 Rue du Chatellier

BP 30316

29603 BREST CEDEX, France

Phone: 33 2 98 22 16 67, Fax: 33 2 98 22 14 32

E-mail: coord.navarea2@shom.fr

Website: www.shom.fr

NAVAREA III (Spain)

Instituto Hidrografico de la Marina

Plaza De San Severiano, 3 11007 Cadiz, Spain

Phone: 34 956 59 94 09, Fax: 34 956 59 93 96 Telex: 76102 MARIH E/76147 MEDCO E

E-mail: ihmesp@redestb.es

NAVAREAS IV AND XII (United States) National Imagery and Mapping Agency

Attn: PTNM (Mail Stop D-44) 4600 Sangamore Road Bethesda, MD 20816-5003

USA

Phone: 301 227 3147, Fax: 301 227 3731

Telex: 898334 NIMA USA E-mail: navsafety@nima.mil Website: www.pollux.nss.nima.mil NAVAREA V (Brazil)

Diretoria de Hidrografia e Navegacao

Rua Barao de Jaceguay S/N°

Ponta da Armacao

CEP 24048-900 Niteroi-RJ Brazil

Phone: 55 21 613 8003/8001, Fax: 55 21 613 8063

Telex: 2134043 MMAR BR E-mail: 01@dhn.mar.mil.br 07@dhn.mar.mil.br Website: www.dhn.mar.mil.br

NAVAREA VI (Argentina) Servicio de Hidrografia Naval Avenida Montes de Oca 2124 C1270ABV Buenos Aires

Argentina

Phone: 54 11 4301 0061/67 Fax: 54 11 4301 2249 E-mail: snautica@hidro.gov.ar Website: www.hidro.gov.ar

NAVAREA VII (Rebublic of South Africa)

Hydrographic Office Private Bag X1, Tokai 7966 Cape Town Republic of South Africa

Phone: 27 21 787 2445 Fax: 27 21 787 2233 (working hours)

27 21 787 2228 (after hours) E-mail: hydrosan@iafrica.co.za Website: hydro.imt.za/hydronet/Ho/

NAVAREA VIII (India)

National Hydrographic Office of India

Post Box No. 75 Dehradun India 248001 Phone: 91 135 747365 Fax: 91 135 748373 Telex: 585220 HYDR IN

E-mail: nho@sancharnet.in Website:www.hydroindia.org

NAVAREA IX (Pakistan)

Hydrographer of the Pakistan Navy

Hydrographic Department Naval Headquarters 11, Liaquat Barracks Karachi, Pakistan 75530

Phone: 92 021 48506151/48506152/ Fax: 92 021 48506360/9203246/9203258 Telex: 20774 HDRO PK/54019 NAV PK

E-mail: hydropk@bol.edu.pk

Website: www.paknavy.gov.pk/hydro

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE. (WWNWS). (Continued).

NAVAREA X (Australia)

RCC Australia

AusSAR, Australian Maritime Safety Authority

GPO Box 2181

Canberra ACT 2601 Australia Phone: 61 2 6230 6811 Fax: 61 2 6230 6868

Telex: 62349 MRCCAUS AA E-mail: rccaus@amsa.gov.au Website: www.amsa.gov.au

NAVAREA XI (Japan) Notices to Mariners Division

Hydrographic and Oceanographic Department

Japan Coast Guard 5-3-1, Tsukiji

Chuo-ku, Tokyo 104-0045 Japan

Phone: 81 3 3541 3726/3727 (working hours)

81 3 3541 3817 (after hours)

Fax: 81 3 3542 7174 Telex: 2522222 JAHYD J E-mail: tuho@jodc.go.jp

Website: www1.kaiho.mlit.go.jp/jhd-E.html

NAVAREA XIII (Russian Federation)
Department of Navigation and Oceanography

8,11 Liniya, B-34

St. Petersburg 199034, Russia Phone: 7 812 213 81 09 Fax: 7 812 323 75 48 Telex: 121531 NAVIO RU E-mail: gunio@homepage.ru Manager, Navigational Safety Hydrographic Business Unit, Royal New Zealand Navy Private Bag 32-901, Devonport

NAVAREA XIV (New Zealand)

Phone: 64 9 445 5709 Fax: 64 9 445 5589

Auckland 9, New Zealand

E-mail: iain.lamont@nzdf.mil.nz Website: www.hydro.linz.govt.nz

NAVAREA XV (Chile)

Director del Servicio Hidrografico y Oceanografico

Armada de Chile

Casilla 324, Valparaiso, Chile

Phone: 56 32 266666 Fax: 56 32 266542/266706 Telex: 230362 HIDRO CL E-mail: shoa@shoa.cl Website: www.shoa.cl

NAVAREA XVI (Peru)

Direccion de Hidrografia y Navegacion de la Marina

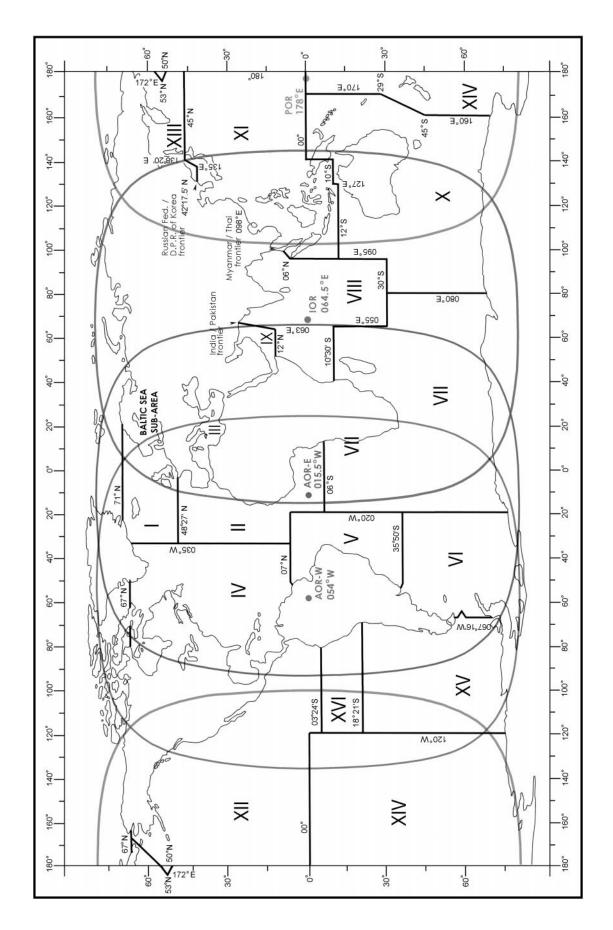
Avenida Gamarra No. 500 Chucuito, Callao 1, Lima - Peru Phone: 51 14 658312/296019/299063

Fax: 51 14 652995

Telex: 26024 PE HIDRONAV E-mail: dihidronav@dhn.mil.pe Website: www.dhn.mil.pe/

Chairman, IHO Commission on Promulgation of Radio Navigational Warnings7 Avenue President J.F. KennedyB.P. 445 MC 98011-Monaco CEDEXPrincipality of Monaco

(Supersedes NTM 1(44)02) (IMO/NIMA)



(45) WEATHER OBSERVATION REPORTS.

All ships are encouraged to participate in the international Voluntary Observing Ship (VOS) program. For information, and to arrange assistance from a U.S. National Weather Service Port Meteorological Officer (PMO) contact:

Voluntary Observing Ship Program

National Data Buoy Center, NWS/NOAA

Building 1100, Room 353A

Stennis Space Center, MS 39529-6000 Telephone: (228) 688-1457, (228) 688-1768

Fax: (228) 688-3153

E-mail: robert.luke@noaa.gov or david.mcshane@noaa.gov

Details on the coding and transmission of weather observations may be found in "Observing Handbook No. 1" provided to ships participating in the U.S. VOS program. The U.S. VOS program also makes available a PC software program known as AMVER/SEAS which greatly assists in coding and transmitting VOS observations and AMVER position reports.

Detailed information on the dissemination of National Weather Service marine products including radiofax, such as frequency and scheduling information may be found in NIMA Publication 117, the British Admiralty List of Radio Signals Volume 3(2), and at http://www.nws.noaa.gov/om/marine/home.htm (includes links to products).

GENERAL INSTRUCTION FOR REPORTING WEATHER OBSERVATIONS

CODED WEATHER MESSAGES: All weather report messages by radio or Inmarsat will be coded in World Meteorological Organization (WMO) ship synoptic code FM13-IX.

STANDARD SYNOPTIC OBSERVATION TIMES: The regular synoptic hours for reporting are 0000, 0600, 1200, and 1800 UTC. However, watch schedules and other ship functions sometimes make it impractical to meet the synoptic weather reporting schedule. Weather observations may also be submitted at the intermediate hours of 03, 09, 15, and 21 UTC. These should be reported as soon as possible, but no later than 3 hours after the synoptic observation time.

TIMELINESS AND REPORT VALUE: All weather reports should be transmitted as soon as possible to the National Weather Service. Weather reports can be ingested by computer forecast models for only for a limited time after the reporting hour. Major computer programs are run at all synoptic hours and a few programs are run every 3 hours. Forecasters look at, and use, all timely reports in making their forecasts and warnings.

SPECIAL WEATHER OBSERVATIONS

TROPICAL STORMS/HURRICANES: Hurricane season has been designated May 15 through November 30 because of the number of tropical storms and hurricanes during the period. Many special programs are in operation during this season and it is requested that the observation schedule, when in the vicinity of a tropical storm or hurricane, be set to transmit weather reports at least every 3 hours (00, 03, 06, 09, etc.). Hourly reports when within a storm (winds over 48 knots) would be very helpful, if ship routine permits.

SPECIAL REQUESTS FOR OBSERVATIONS: The U.S. National Weather Service may request ships located in areas of suspected storm development to take special observations at more frequent intervals than the routine 6-hourly synoptic observation times. If your ship happens to be in such an area, your report will be helpful even though conditions may not appear bad enough to warrant a special observation.

OBSERVATIONS DURING STORM CONDITIONS: Whenever TROPICAL STORM, TYPHOON, or HURRICANE conditions are encountered anywhere, "SAFETY OF LIFE AT SEA CONVENTION," Chapter V, requires all ships to take special observations and transmit the report to the closest national meteorological service via the most convenient radio or Inmarsat station. In addition to this requirement, it is highly desirable that weather reports be transmitted hourly, if possible; but in any case, not less frequently than every 3 hours.

EXTRATROPICAL STORMS: Submit a weather report message as soon as the average wind equals or exceeds 48 knots. Report at least every 3 hours when under STORM conditions.

(45) WEATHER OBSERVATION REPORTS. (Continued).

COASTAL REPORTS: The weather starts changing as soon as the air moves from land out over the water. Ship weather reporting should continue as close to the coast as ship routine permits. When within 200 miles of the U.S. and Canadian coastlines, reports are requested every 3 hours.

TRANSMISSION OF WEATHER REPORTS

Below is a summary of the primary means by which VOS observations are transmitted to the National Weather Service. Details on these and other available transmission services may be found in "Observing Handbook No. 1."

SITOR OR SINGLE SIDEBAND WEATHER REPORTS THROUGH THE U.S. COAST GUARD: As the usual call up includes "I have weather for you" type of information, no address (i.e., OBS METEO WASHDC) is necessary. The U.S. Coast Guard automatically transmits weather reports only to the National Weather Service. When acknowledged, start the message with the group BBXX followed by the ship's call sign and proceed with the numbers of the report. Some U.S. Coast Guard radio stations will accept weather reports by voice over single sideband radio. The procedures are the same as above. Phonetically pronounce the group BBXX, the ship's call sign, and then proceed with the numbers of the report.

INMARSAT WEATHER REPORTS (STANDARD A):

- 1. Select U.S. Coast Earth Station Identification, Code 01.
- 2. Select routine priority.
- 3. Select duplex telex channel.
- 4. Initiate the call.

Upon receipt of GA+ (Go Ahead)

- 5. Select dial code for meteorological reports, 41, followed by the end of selection signal, +. Example: 41+.
- 6. Upon receipt of our answerback, NWS OBS MHTS, transmit the group BBXX, the ship's call sign, and then the weather message only. Do not send any other preamble. Example:

GA+

41 +

NWS OBS MHTS

BBXX WLXX 29003 99131 70808 41998 60909 10250 2021/40110 52003 71611 85264 22234 00261 20201 31100 40803.....

- 7. Send 5 periods to indicate the end of the message.
- 8. Try to limit Inmarsat call time to 30 seconds to reduce costs incurred by the NWS.

(STANDARD C):

- 1. To establish special access code 41, see manufacturer's recommended instructions for set-up. Your local Port Meteorological Officer will also be able to assist you.
- 2. Do not request confirmation for these messages as this incurs additional expense for the National Weather Service.

WEATHER REPORTS THROUGH SPECIFIED U.S. COMMERCIAL RADIO STATIONS: If the U.S. Coast Guard cannot be contacted and ship is not Inmarsat equipped, as a backup, U.S. commercial radio stations specified in the publication "Observing Handbook No. 1" may be contacted to relay weather messages.

(Supersedes NTM 1(45)02) (NOAA/NWS)

(46) RADAR BEACONS (RACONS).

Radar beacons (RACONs) are radar responder devices designed to produce a distinctive image on the screens of ship's radar sets, thus enabling the mariner to determine his position with greater certainty than would be possible using a normal radar display alone.

The U.S. Coast Guard operates approximately 80 radar beacons (RACONs) as maritime navigational aids in the Great Lakes, off the Atlantic, Pacific, and Gulf coasts, and on the North Slope of Alaska. RACONs are used to mark and identify points on shore; channel separation, LNB, and other buoys; channel entrances under bridges; and uncharted hazards to navigation (the Morse letter "D", dash-dot-dot, has been reserved for this purpose). RACON marks displayed on a radar screen are Morse characters typically of length 1 to 2 miles, always start with a dash, and always extend radially outward from the radar target marked by the beacon. RACON locations and identifications are included on most marine navigation charts.

(46) RADAR BEACONS (RACONs). (Continued.)

RACONs should be visible to most commercial shipboard radar systems on vessels 6-20 miles from the RACON installation, regardless of radar size. No additional receiving equipment is required. Some precautions are necessary, however, if use of RACONs is desired. Radars that operate in the 10 cm band (2900-3100 MHz) are usually installed as a second radar on larger vessels, and may not respond to RACONs. The Coast Guard now installs dual band (3 cm and 10 cm) RACONs in most locations. In addition, rain clutter control switches on radars must be switched off or, if necessary, on low to ensure that the RACON is visible. Finally, most RACONs operating in the U.S. are frequency agile RACONs. Pulse correlation circuitry (interference or clutter rejection on some radars) installed on most newer radars, if on, may prevent the radar from displaying some RACONs. This circuitry should be switched off.

(Repetition NTM 1(46)02) (USCG)

(47) **NAVTEX.**

NAVTEX is an international automated medium frequency (518 kHz) direct-printing service for promulgation of navigational and meteorological warnings and forecasts, as well as urgent marine safety information to ships. It was developed to provide a low-cost, simple, and automated means of receiving this information aboard ships at sea within approximately 200 nautical miles of shore. NAVTEX receivers screen incoming messages, rejecting those which had been previously received or are of a category of no interest to the user. Mariners who do not have NAVTEX receivers but have SITOR radio equipment can also receive these broadcasts by operating it in the FEC mode and tuning to 518 kHz. Internationally, NAVTEX is also broadcast on the alternate NAVTEX frequencies of 490 and 4209.5 kHz.

The Coast Guard broadcasts NAVTEX messages from:

BOSTON, MA (NMF):	Identification (B ₁): F Schedule (UTC): 0045, 0445, 0845, 1245, 1645, 2045
CHESAPEAKE (PORTSMOUTH), VA (NMN):	Identification (B ₁): N Schedule (UTC): 0130, 0530, 0930, 1330, 1730, 2130
SAVANNAH, GA: (NMN)	Identification (B ₁): E Schedule (UTC): 0040, 0440, 0840, 1240, 1640, 2040
MIAMI, FL (NMA):	Identification (B ₁): A Schedule (UTC): 0000, 0400, 0800, 1200, 1600, 2000
ISABELLA (SAN JUAN), PR (NMR):	Identification (B ₁): R Schedule (UTC): 0200, 0600, 1000, 1400, 1800, 2200
NEW ORLEANS, LA (NMG):	Identification (B ₁): G Schedule (UTC): 0300, 0700, 1100, 1500, 1900, 2300
KODIAK, AK (NOJ):	Identification (B ₁): J Schedule (UTC): 0300, 0700, 1100, 1500, 1900, 2300
ASTORIA, OR (NMC):	Identification (B ₁): W Schedule (UTC): 0130, 0530, 0930, 1330, 1730, 2130
POINT REYES (SAN FRANCISCO), CA (NMC):	Identification (B ₁): C Schedule (UTC): 0000, 0400, 0800, 1200, 1600, 2000
CAMBRIA, CA (NMC):	Identification (B ₁): Q Schedule (UTC): 0045, 0445, 0845, 1245, 1645, 2045
HONOLULU, HI (NMO):	Identification (B ₁): O Schedule (UTC): 0040, 0440, 0840, 1240, 1640, 2040

(47) NAVTEX. (Continued).

GUAM (NRV): Identification (B₁): V

Schedule (UTC): 0100, 0500, 0900, 1300, 1700, 2100

Information broadcast over NAVTEX includes weather forecasts, offshore marine advisory warnings, search and rescue information, and navigational information that applies to waters from the line of demarcation (separating Inland Rules waters from COLREG Rules waters) to 200 NM offshore. Navigational information that affects the safety of navigation of deep draft (15 feet or more) vessels within U.S. Inland Rules waters will also be included.

NAVAREA IV/XII, HYDROLANT/HYDROPAC and ice information over HF SITOR/NBDP (Simplex Telex Over Radio/Narrow Band Direct Printing) began July 1991 from Coast Guard Stations in Boston, Point Reyes, Honolulu and Guam. Broadcasts are made on 6314 kHz, 8416.5 kHz, 12579 kHz, 16806.5 kHz and 22376 kHz. See NIMA Pub. 117, Radio Navigational Aids, for schedules.

(Supersedes NTM 1(47)02) (USCG)

(48) SATELLITE DETECTION OF DISTRESS SIGNALS.

The COSPAS-SARSAT System is an international cooperative effort using satellites to detect distress beacons carried by aircraft, vessels, and persons operating in harsh remote environments. A constellation of satellites in low- earth, polar orbits detects and relays distress beacon signals to ground stations. The system delivers distress alerting and position information to the appropriate Rescue Coordination Center.

Extensive coverage is provided over the North American maritime region and other areas for 121.5/243.0 MHz; the 406 MHz system is global in its coverage.

In addition, a network of geostationary satellites is used to complement the polar orbiting constellation. Satellites in orbit over a fixed point on the equator at 22,000 miles continuously monitor the earth within their view, about 40% of the earth's surface. These satellites process 406 MHz beacon signals only. The geostationary satellites support immediate distress alerting for beacons within their field of view. The United States, India and Russia are currently operating participating satellites. Other nations plan to participate in the near future.

EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB).

The Emergency Position Indicating Radio Beacon (EPIRB) is an emergency radio transmitting device used for maritime distress alerting and locating. Table 1 provides an overview of the different classes of EPIRBs currently in existence. Table 2 gives summary comparison of the significant differences between the 406 MHz and 121.5/243.0 MHz beacons. It should be noted that classes A,B,C, and S are gradually being phased out and replaced by Satellite EPIRBS of Cat I and II. For current carriage requirements refer to Navigation and Vessel Inspection Circular No. 9-95; any questions concerning requirements to carry EPIRBs or other safety equipment should be referred to the U.S. Coast Guard (G-MSE-4) Lifesaving and Fire Safety Division, telephone (202) 267-1444.

(48) SATELLITE DETECTION OF DISTRESS SIGNALS. (Continued).

TABLE 1

CLASS	FREQUENCY	DESCRIPTION	DETECTION
Cat I	406 MHz with 121.5 MHz homing signal	Float free beacon	Polar orbiting and geostationary satellites, high flying aircraft
Cat II	406 MHz with 121.5 MHz homing signal	Manually activated	Polar orbiting and geostationary satellites, high flying aircraft
A	VHF-AM 121.5 & 243.0 MHz	Float free	Polar orbiting satellites and high flying aircraft
В	VHF-AM 121.5 & 243.0 MHz	Manually activated or water-activated battery	Polar orbiting satellites and high flying aircraft
S	VHF-AM 121.5 & 243.0 MHz	Manually activated (same as Class B); required for survival craft (SOLAS)	· ·
Inmarsat-E	1646 MHz	Float free beacon	Satellites

TABLE 2 SUMMARY COMPARISON OF 406 MHz AND 121.5 MHz BEACONS IN THESE CRITICAL AREAS

406 MHz EPIRB

121.5 MHz EPIRB

Coverage:

Global.

Ground station dependent; ground stations have an effective radius of about 1800 NM. Current coverage: about one-third of the world.

Reliability-False Alerts/False Alarms:

All alerts come from beacons. Satellite beacon transmissions are digital coded signals. Satellites process only coded data, other signals are rejected.

About 1 in 10 alerts are actual distress.

Individual beacon-unique coding and registration allow rapid incident corroboration. Registration became mandatory 9/13/94. About 90% of 406 MHz beacons are registered. More than 70% of 406 MHz false alarms are resolved by a phone call to registration POCs.

Only about 1 in 4 alerts come from beacons. Satellites cannot discern beacon signals from many non-beacon sources. Beacons transmit anonymously.

Fewer than 1 in 1000 alerts are actual distress.

Since 121.5 MHz beacons transmit anonymously, the only way to ascertain the situation is to dispatch resources to investigate—a costly disadvantage.

Alerting

First alert confidence is sufficient to warrant launch of SAR assets. Earlier launches put assets on scene earlier–Average 2 hrs saved in maritime, 6 hrs in inland. These savings are survival-significant.

High false alarm rate makes first-alert launch infeasible. Absent independent distress corroboration, RCCs must wait for additional alert information.

(48) SATELLITE DETECTION OF DISTRESS SIGNALS. (Continued).

406 MHz EPIRB

121.5 MHz EPIRB

Average initial detection/alerting by orbiting satellite is 45 minutes—worst case about 60 minutes.

Same as 406 MHz.

Average time between subsequent satellite passes is about 60 minutes.

Same as 406 MHz.

Vessel/aircraft ID, point of contact information provided with alerts allows rapid corroboration or stand-down.

Alerts are anonymous 121.5 MHz technology not

capable of transmitting data.

Allows false alarm follow-up to continuously improve system integrity/reliability.

No capability.

Near instantaneous detection by geostationary satellites. (System in demonstration and evaluation phase with very substantial coverage 70N to 70S.)

No capability.

Position Information:

2–5 km accuracy on average. Position calculated by Doppler shift analysis.

10–20 km accuracy on average. Position calculated

by Doppler shift analysis.

Capable of processing beacon-transmitted position information from independent source, e.g.: GPS. Capable beacons and system infrastructure will be available/in place by end of 1997.

No capability.

Locating the Target:

Superior alert position accuracy limits initial position uncertainty to about 40 sq. km.

Initial position uncertainty is about 700 sq. km on

average.

121.5 MHz homing signal facilitates target location by radio detection finder-equipped search units.

Same as 406 MHz.

The nearest U.S. Coast Guard rescue coordination center MUST be notified whenever an inadvertent EPIRB distress alert is transmitted.

Distress beacon false alarms are a major problem. False alarms delay response, divert scarce response resources from real distress situations, and can quickly overburden the SAR system. Minimize false alarms with proper handling and storage of EPIRBs; understand and comply with manufacturer's operating instructions for your particular EPIRB and tune a radio to 121.5 or 243.0 MHz to monitor the frequency/detect any inadvertent activation. EPIRBs with two-condition, automatic-activation switches (e.g. out of bracket and in water) have demonstrated significantly reduced false alarm rates with no adverse impact on automatic distress performance. The aviation equivalent, the Emergency Locator Transmitter (ELT), has an extremely poor track record in regard to false alarms. While the EPIRB does not have the same engineering problems, the EPIRB user must be aware of how false activations can quickly overburden search and rescue resources.

Inadvertent activations should be reported immediately to the nearest RCC to protect system integrity and prevent costly false alarm response.

EPIRB owners should routinely test their beacons in accordance with manufacturer instructions, and examine them for water tightness and battery expiration date. FCC rules allow class A, B, and S EPIRBs to be turned on briefly (one second only) during the first five minutes of any hour. Signal presence can be detected by an FM radio tuned to 99.5 MHz or an AM radio tuned to any vacant frequency and located close to an EPIRB.

406 MHz beacon registration has been mandatory since 13 September 1994. Satellite emergency position-indicating radio beacon (EPIRB) is intended to save your life, and is also required by Federal Communications Commission regulations.

(48) SATELLITE DETECTION OF DISTRESS SIGNALS. (Continued).

NOAA maintains the U.S. registration data base. When a 406 MHz alert is received, the system automatically checks the data base for an ID match and appends available registration information to the alert message to the responsible RCC. Registration point of contact-provided position information can be used in conjunction with geostationary satellites immediate alerting to allow SAR response 45-90 minutes sooner than otherwise possible—a survival-significant response advantage. In circumstances where the COSPAS-SARSAT system is not able to calculate a distress position, registration data may provide the only link to rescue.

If you purchase a new or a used 406 MHz EPIRB, you MUST register it with NOAA. If you change your boat, your address or your phone number, you MUST re-register your EPIRB with NOAA.

Request 406 MHz EPIRB registration forms from, and mail or fax completed forms to:

NOAA SARSAT E/SP3, RM 3320, FB-4 5200 Auth Road Suitland, MD 20746-4304

or call (301) 457-5678 (fax: (301) 568-8649) for further information on registering these EPIRBs. NOAA sends a decal to be affixed to the beacon to confirm registration and as ready evidence of compliance. NOAA contacts all registered beacon owners on a two year schedule to maintain database accuracy. This service is free of charge. Please keep your registration current - IT MAY SAVE YOUR LIFE.

(Supersedes NTM 1(48)02) (USCG)

(49) HF AND VHF RADIOTELEPHONE AND RADIOTELEX MARINE SAFETY BROADCASTS.

Urgent and routine broadcasts of marine safety information are announced on VHF Channel 16 (156.8 MHz) and made on Channel 22A (157.1 MHz), the ship station transmit frequency portion of Channel 22, of Appendix 18 of the International Telecommunications Union (ITU) Radio Regulations.

The Coast Guard normally broadcasts selected coastal navigational warnings, local major navigational warnings, and local minor navigational warnings on VHF Channel 22A. NAVTEX broadcasts normally include only coastal navigational warnings and weather information. Medium frequency radiotelephone broadcasts can include coastal or selected coastal and local major navigational warnings. These single sideband voice broadcasts are announced on 2182 kHz and are made on 2670 kHz.

Information regarding USA VHF-FM marine safety broadcasts is published in the ITU List of Radiodetermination and Special Service Stations and other internationally-available publications.

Questions and comments concerning VHF marine safety broadcasts should be addressed to the local Coast Guard District staff, or to:

Commandant (G-SCT)
United States Coast Guard
Washington, DC 20593-0001
E-mail: CGCOMMS@COMDT.USCG.MIL

FORMAT OF MARINE INFORMATION BROADCAST/MESSAGES.

1. Urgent Marine Information Message.

a. Radiotelephone:

(1) 2182 kHz and/or Channel 16 (156.8 MHz). PAN-PAN (3 times) HELLO ALL STATIONS THIS IS (voice call sign twice) (brief identifying data) LISTEN (2670 kHz or Channel 22A) OUT

(2) 2670 kHz and/or Channel 22A (157.1 MHz). PAN-PAN (3 times) HELLO ALL STATIONS THIS IS (voice call sign twice) break (text) break THIS IS (voice call sign once) OUT

(49) HF AND VHF RADIOTELEPHONE AND RADIOTELEX MARINE SAFETY BROADCASTS. (Continued).

b. Cancellation message:

(1) Radiotelephone. PAN-PAN HELLO ALL STATIONS HELLO ALL STATIONS HELLO ALL STATIONS HELLO ALL STATIONS THIS IS (voice call sign once, date and time of message and brief identifying data on canceled urgent traffic) CANCEL PAN-PAN THIS IS (voice call sign once) OUT

2. Safety Marine Information Message Format.

Radiotelephone:

(1) 2182 kHz and/or Channel 16 (156.8 MHz) SECURITE (3 times) HELLO ALL STATIONS THIS IS (voice call sign twice) COAST GUARD MARINE INFORMATION BROADCAST (or) HURRICANE ADVISORY/STORM WARNING etc. LISTEN (2670 kHz and/or Channel 22A) OUT

(2) 2670 kHz and/or Channel 22a (157.1 MHz) SECURITE (3 times) HELLO ALL STATIONS THIS IS (voice call sign once) break (text) break THIS IS (voice call sign once) OUT

3. Scheduled Broadcast Format.

Radiotelephone:

(1) 2182 kHz and/or Channel 16 (156.8 MHz). HELLO ALL STATIONS (3 times) THIS IS (voice call sign twice) COAST GUARD MARINE INFORMATION BROADCAST LISTEN (2670 kHz and/or Channel 22A) OUT

- $(2)\ 2670\ kHz\ and/or\ Channel\ 22A\ (157.1\ MHz)\ HELLO\ ALL\ STATIONS$
- (3 times) THIS IS (voice call sign once) break (text) break THIS IS (voice call sign once) OUT
- a. No preliminary announcement is made for HF broadcasts.
- b. When no information is to be transmitted during a scheduled broadcast, the station shall make the following transmission after the call: "NO MARINE INFO BCST THIS SCHEDULE"

4. Abbreviations.

- a. In order to reduce the circuit time of Marine Information Broadcasts, readily recognizable abbreviations shall be used by the originator where there is no chance of ambiguity.
- b. When broadcasting National Weather Service (NWS) information the exact text as received from the NWS shall be transmitted.

(Supersedes NTM 1(49)02) (USCG)

(50) MARAD ADVISORIES.

MARAD Advisories rapidly disseminate information on government policy, danger and safety issues pertaining to vessel operations, and other timely maritime matters. MARAD Advisories are periodically issued by the U.S. Maritime Administration (MARAD) to vessel masters, operators and other U.S. maritime interests. The texts of MARAD Advisories are published in weekly Notice to Mariners No. 1, and can be accessed through the National Imagery and Mapping Agency's Maritime Safety Information website (http://pollux.nss.nima.mil) and through the MARAD website (http://marad.dot.gov).

MARAD ADVISORIES (In force 18 December 2002)

MARAD ADVISORY NO. 00-07 (221500Z NOV 00)

SUBJECT: YEMEN

TO: ALL OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROL VESSELS

1. The National Imagery and Mapping Agency (NIMA) requested that the Maritime Administration (MARAD) issue HYDROPAC 1694/00(62) as a MARAD Advisory to ensure wider dissemination to the maritime community. Below is

(50) MARAD ADVISORIES. (Continued).

HYDROPAC 1694/00(62) in its entirety.

2. Due to recent events in Yemen, mariners are advised to use increased caution when approaching or entering Yemeni waters. Special Warning 113 is still in effect. See U.S. Notice to Mariners 45/2000 date November 4, 2000 or the NIMA Marine Navigation website at http://pollux.nss.nima.mil.

MARAD ADVISORY NO. 01-01 (131530Z MAR 01)

SUBJECT: MINE DANGER AREA ADVISORY FOR MERCHANT SHIPPING IN THE NORTHERN PERSIAN (ARABIAN) GULF

TO: ALL OPERATORS OF U.S. FLAG, EFFECTIVE U.S. CONTROLLED VESSELS AND OTHER MARITIME INTERESTS

- 1. The Commander, U.S. Navy Central Command (COMUSNAVCENT), has issued the following Merchant Ship Advisory. This cancels MARAD Advisory 98-1 and provides the results of Mine Danger Area (MDA) clearance off the coast of Kuwait.
- 2. COMUSNAVCENT Mine Countermeasure ships conducted extensive mine hunting operations in the Arabian Gulf in an attempt to certify known mined areas to be mine free. To date, thorough searches of MDA numbers SEVEN, EIGHT, and NINE as defined in MARAD Advisory 92-2 have been completed with no mines or ambiguous contacts found.
- 3. The following MDA was specified as an area where mines were known to exist, and although partially searched for mines, remains the area with the highest probability of mines and should be avoided by all shipping:

MDA Number TEN

29-51.50N 048-46.30E

29-51.50N 048-48.00E

29-40.30N 048-48.00E

29-37.25N 048-39.60E

29-37.25N 048 32.50E

4. COMUSNAVCENT has determined that appropriate clearance of MDA number SIX has been achieved with the exception of the shallowest portion as follows:

28-32.23N 048-26.60E

28-32.14N 048-32.50E

28-37.00N 048-27.50E

28-37.75N 048-24.25E

- 5. The remainder of MDA number SIX and MDAs numbers SEVEN, EIGHT AND NINE have been rescinded. NOTE: Because areas previously mined can never be judged completely safe, even after successful demining operations, mariners are cautioned that mines still present a hazard. Vessels needing to anchor within the former MDAs should do so at the direction of local authorities.
- 6. This cancellation of previous MDAs, transit channel coordinates and mine swept areas does not guarantee the safe passage or the absence of mines, nor does it represent any assumption of liability by the U.S. Government for the safety of commercial traffic. All merchant vessels are free to choose their own navigational tracks and are not restricted by this Advisory or the U.S. Government in the choice.
- 7. For updates on this Advisory merchant vessels can contact the COMUSNAVCENT Maritime Liaison Office (MARLO) Bahrain via telex 7031 (ASU BN), landline (973) 743-925, or fax (973) 743-930. Vessels should also consult the latest editions of NIMA nautical charts as updated with chart corrections found in the Summary of Corrections, Volume 3 and at the Maritime Safety Information Center homepage at pollux.nss.nima.mil. Corrections specific to the MDAs were published in Notice to Mariners 20/1998 and 45/1999.
- 8. Note that the positions listed in this Advisory are given using the World Geodetic System (WGS).
- 9. Vessel operators are requested to forward this Advisory to their vessels in or entering the affected area as soon as possible and to all other vessels by the most effective means.
- 10. For further information regarding the issuance of this or other MARAD Advisories, contact the Maritime Administration, Office of Ship Operations, Division of Operations Support, Code MAR-613, Room 2123, 400 Seventh Street SW, Washington DC 20590; telephone (202) 366-5735, fax (202) 366-3954.

(50) MARAD ADVISORIES. (Continued).

MARAD ADVISORY NO. 01-05 (142000Z SEP 01)

SUBJECT: THE PREVENTION AND REPORTING OF HOSTILE INCIDENTS DIRECTED AT MERCHANT SHIPS AS DISCUSSED IN PUB. 117, "RADIO NAVIGATIONAL AIDS"

TO: OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROLLED VESSELS

- 1. Hostile actions directed at merchant shipping are a present and growing problem. These hostile actions include piracy, theft and terrorism.
- 2. Several agencies, nationally and internationally, have been instituted or directed to assist in countering this problem. The first step in controlling the problem is to establish a reliable database of incidents to define the area and degree of the problem. Such a database has been instituted by the National Imagery and Mapping Agency (NIMA) as the Anti-Shipping Activity Message (ASAM) file. This file can be accessed via the internet at NIMA's Safety of Navigation website at http://pollux.nss.nima.mil.
- 3. NIMA has also established Ship Hostile Action Report (SHAR) procedures to disseminate information within the U.S. Government on hostile actions against U.S. merchant ships. The procedures for sending SHAR reports are detailed in NIMA Pub. 117, "Radio Navigational Aids," Edition 2001, on page 4-11.
- 4. It should be noted that neither the ASAM nor SHAR reports are a distress message. U.S. and effective U.S. controlled (EUSC) vessels under attack or threat of attack may request direct assistance from the U.S. Navy by following the procedures in Part II of Chapter 4 of Pub. 117, Edition 2001.
- 5. The Maritime Administration urges all vessels to carry NIMA Pub. 117, Radio Navigational Aids, Edition 2001. An incentive for all ship operators to have the new edition of Pub. 117 on board their vessels is the IMO concurrence that Pub. 117 should be accepted for carriage to meet the requirements of SOLAS regulation V/20 in lieu of the "GMDSS Master Plan." (The full text of this announcement is printed in "Notice to Mariners" 11/01, dated 17 March 2001.)
- 6. All NIMA navigational publications are offered for sale and may be ordered online, by phone or fax, or by mail. Orders can be placed on the encryption-protected U.S. Government online bookstore (http://bookstore.gpo.gov), by phone (202-512-1800, 1-866-512-1800, toll free, from 7:30 AM until 4:30 PM Eastern, Monday through Friday), fax (202-512-2250, 24 hours per day), or by regular mail. Send mail orders and payment to:

Superintendent of Documents

P.O. Box 371954

Pittsburgh, PA 15250-1954

- 7. Cancel MARAD Advisories 98-6 and 01-02.
- 8. Vessel operators are requested to forward this advisory to their vessels, terminals and security officials as appropriate. Note that this Advisory will subsequently be published in the NIMA weekly "Notice to Mariners" and MARAD worldwide website.
- 9. For further information regarding this Advisory, contact the Maritime Administration, Office of Ship Operations, Code MAR-613, Room 2123, 400 Seventh Street SW, Washington DC 20590; telephone 202-366-5735; fax 202-366-3954; or internet e-mail: opcentr1@marad.dot.gov.

MARAD ADVISORY NO. 01-07 (051700Z NOV 01)

SUBJ: MARITIME INDUSTRY REPORTING OF SUSPECTED/ACTUAL TERRORIST INCIDENTS

TO: OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROLLED VESSELS AND OTHER MARITIME INTERESTS

The following U.S. Coast Guard message was originally sent to all Coast Guard units on 31 Oct. It is being released as a MARAD Advisory in order to ensure the widest distribution possible.

- 1. "Purpose: This message is to provide the maritime industry with one national telephone number (800-424-8802) to report suspected and actual terrorist incidents.
- 2. Background: The National Response Center (NRC) is the central point of contact for all oil, chemical, radiological, biological and etiological releases anywhere in the United states. These hazardous substances may potentially be used in a terrorist incident, and given the existing capabilities, the NRC can serve as an effective clearinghouse for notification of terrorism incidents.
- 3. Discussion: (A) While it may be difficult to predict and prevent a terrorist attack, certain steps can be implemented to minimize the chance that the attack will disrupt vessel/port operations. CG Headquarters is working with industry, field units, and other law enforcement agencies to develop and communicate best practices for prevention. The FBI and USPS have published guidance on their websites that provide "tell-tale" signs for identifying suspicious packages. Further, some cruise ship companies have set up satellite mail processing trailers to minimize the impact of an anthrax threat on both the vessel and terminal operations. (B) Upon notification of a potential terrorist incident the NRC will connect the caller to the

(50) MARAD ADVISORIES. (Continued).

FBI's Strategic Intelligence and Operations Center (SIOC), who will coordinate with other agencies to perform an immediate assessment of the threat credibility. In some instances, the FBI may be able to verify that the report is a false alarm or hoax and requires no response. Other cases may require an on scene assessment by the FBI and other federal, state and local officials. In conjunction with the threat assessment, the NRC will also notify other NRT response agencies under existing protocols.

- 4. Action: (A) In addition to oil and hazardous substance releases, the NRC should be notified of any suspected terrorist incident, particularly those affecting transportations systems. Units should ensure all reports of suspected or actual incidents are reported to the NRC at 800-424-8802 or 202-267-2675. (B) Recommend that the contents of this ALCOAST be widely distributed to the maritime industry so they know how to report suspected/actual terrorist incidents.
- 5. Internet release authorized.
- 6. Released by RADM Pluta, Assistant Commandant for Marine Safety and Environmental Protection, and RADM Cross, Assistant Commandant for Operations."
- 7. All U.S.-flag operators are requested to forward this advisory to their ships by the most expedient means. This advisory will subsequently be published in the weekly "Notice to Mariners" and MARAD worldwide website.
- 8. For further information regarding this Advisory, contact the Maritime Administration, Office of Ship Operations, Code MAR-613, Room 2123, 400 Seventh Street SW, Washington DC 20590; telephone 202-366-5735; or fax 202-366-3954.

MARAD ADVISORY NO. 02-02 (131730Z JUN 02)

SUBJECT: VESSEL REPORTING TO NATO SHIPPING CENTER FOR MERCHANT SHIPS TRANSITING THE SUEZ CANAL, UPDATE

TO: OPERATORS OF U.S. FLAG VESSELS AND AND OTHER MARITIME INTERESTS

- 1. The NATO Shipping Center in Northwood, UK continues to support NATO Naval forces deployed in the Eastern Mediterranean. These forces have established a deterrent naval presence and are conducting surveillance and monitoring operations which has been extended until 01 Jan 03. It is intended that the Shipping Center provide shipping information to the warships while also acting as a point of contact for the merchant marine.
- 2. The strategic significance of the Suez Canal during a period of tension in the Middle East, together with the campaign against terrorists are the prime reasons for the naval deployment. The surveillance operation and activation of the Center have been discussed with Lloyds of London who have indicated that a deterrent naval presence would have a beneficial stabilizing influence on insurance premiums in the region.
- 3. In order for the Shipping Center to be effective the cooperation of the merchant marine of NATO and Partner Countries is required. Specifically, details are requested of ships intending to transit the Suez Canal, or which have completed the North bound transit, between Longitude 28° East and Port Said, EG (Longitude 28° East passes through the Isle of Rhodes, GR).
- 4. In order to give adequate time for the data to be compiled and sent to the NATO warships, the information is required 24 hours in advance. Provision of this information will assist in the compilation of an accurate shipping plot for the surveillance and monitoring of shipping by NATO naval forces in the region. It will also reduce VHF traffic between merchant and naval vessels.
- 5. The preferred method for merchant vessels to report to the Shipping Center is by e-mail. Alternate means are by fax or telephone.

E-mail: shippingcentre@eastlant.nato.int

Website: http://www.eastlant.nato.int/natosc/index.htm

Fax: +44 1923 843575 Phone: +44 1923 843574

6. In order to further encourage reporting to the Shipping Center, the data requested has been significantly reduced as detailed below. While the reporting of shipping data is on a voluntary basis, Nations are strongly encouraged to support this NATO operation which, by providing a stabilizing naval presence, brings benefits to shipping in the region.

Ship Data:

- 1. Ship's Name
- 2. International Call Sign
- 3. IMO Number
- 4. General Nature of Cargo

Voyage Data:

- 5. Southbound Ships
 - (a) ETD and Name of Last Port of Call

(50) MARAD ADVISORIES. (Continued).

- (b) ETA Suez
- 6. Northbound Ships
 - (a) ETD Suez
 - (b) Next Port
- 7. For further information regarding this Advisory, contact the Maritime Administration, Office of Ship Operations, Division of Operations Support, Code MAR-613 Room 2122, 400 Seventh Street SW, Washington, DC 20590; Telephone (202) 366-5735, Fax (202) 366-3954.
- 8. This Advisory cancels MARAD Advisory 01-08 (21 Dec 01).

MARAD ADVISORY NO. 02-05 (262118Z JUL 02)

SUBJECT: MARITIME ALERT AND THREAT DISSEMINATION

TO: OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROLLED VESSELS AND OTHER MARITIME INTERESTS

- 1. The Maritime Administration has received information from the Department of Transportation's Office of Intelligence and Security, regarding increased threat possibilities to American ships operating in or near the waters of Sudan, Yemen, Somalia, Indonesia, and the Strait of Malacca. While there is no known specific threat information, ships are urged to review their security procedures and discuss with local Port Authorities what security measures are in place to protect ships at anchor or pierside from surface threats, threats from land, or underwater threats.
- 2. U.S. merchant vessels and cruise ships should be on a heightened state of security, should closely monitor the National Imagery and Mapping Agency's (NIMA) broadcast warnings and should review the emergency communication procedures for assistance in NIMA Publication 117.
- 3. All U.S.-flag ships required by regulation to file Amver position reports and operating in the north Arabian Sea, Gulf of Oman, Persian Gulf, Gulf of Aden, Red Sea and the Suez Canal are reminded to file Amver position reports every 24 hours vice every 48 hours.
- 4. All U.S.-flag operators with ships in the affected areas are requested to forward this Advisory to their ships by the most expedient means. This Advisory will subsequently be published in the weekly "Notice to Mariners" and MARAD worldwide website.
- 5. All U.S.-flag operators are advised that they can contact the Maritime Administration for information and assistance regarding vessel operations especially if they have security concerns. For further information regarding this Advisory contact the Maritime Administration, Office of Ship Operations, Code MAR-613, Room 2123, 400 7th Street SW, Washington, DC 20590; Telephone 202-366-5735, or by email to opentr1@marad.dot.gov.

MARAD ADVISORY NO. 02-07 (102300Z OCT 02)

SUBJECT: THREAT ADVISORY

TO: OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROLLED VESSELS AND OTHER MARITIME INTERESTS

- 1. This provides the latest Advisory from U.S. law enforcement and intelligence agencies addressing the current threat and is provided by the Department of Transportation Office of Intelligence and Security. This Advisory is based upon publicly released information and may be shared within the transportation community.
- 2. Recent statements, apparently by Al Qaeda leaders, threaten attacks against US economic interests. An audio message from Osama Bin Laden (taped on an undetermined date), broadcast by Al Jazeera on Sunday (6 October), refers to Al Qaeda targeting key sectors of the US economy. Another senior leader (Bin Laden's senior deputy, Ayman Al Zawahir) reiterated the threat in the closing line of an audio taped interview released Tuesday (9 October). This information strengthens previous assessments that Al Qaeda continues to plan major attacks against U.S. interests. The focus upon economic targets is consistent with Al-Qaeda's stated ideological goals and longstanding strategy, to undermine what they see as the backbone of US power, the economy. Striking a prominent U.S. target for economic and symbolic reasons would have immediate worldwide impact.
- 3. The coordinated release of these statements, coupled with our knowledge of ongoing plotting by Al Qaeda members and threat information described by detainees, strengthens previous assessments that Al Qaeda continues to plan major attacks against US interests. The statements suggest that an attack may have been approved, while the specific timing is left to operatives in the field. Our concerns are heightened by comments from Al Qaeda detainees who are independently interpreting these taped remarks as a sign of attack. In 1998, Al Qaeda issued a fatwa (religious ruling) calling for attacks against Americans worldwide, apparently presaging the August 7, 1998 East Africa Embassy bombings. The content of the statements and the context surrounding these threats reinforces our view that they may signal an attack. One senior detainee maintains that Al Qaeda would only release such a statement after approving a specific plan for an attack. At this

(50) MARAD ADVISORIES. (Continued).

time, we have no information on a specific time, date or location of an attack.

- 4. Other aspects of the statements reflect what we know of Bin Laden and Al Qaeda strategy. In addition, other recent appeals in extremist circles, some purporting to be from Bin Laden, urge Muslim youth to strike US forces in Kuwait, Jordan, Qatar, and Bahrain. The Al Qaeda organization, which has lost its safe haven in Afghanistan and many of its leaders, is attempting to manipulate the broader Islamic extremist community to attack the United States at home and abroad.
- 5. The focus on economic targets is consistent with Al Qaeda's stated ideological goals and longstanding strategy. The September 11 attacks and commentary on these attacks by Bin Laden and others indicate how central economic targets are to this strategy: the group's leaders have said that they aim to undermine what they see as the backbone of US power, the economy. Our adversary is trying to portray American influence as based on economic might and therefore seeks to strike an economic target prominent enough for economic and symbolic reasons that it would have immediate resonance around the world.
- 6. Recipients should review and implement additional prudent steps to detect, disrupt, deter, and defend against potential attacks against our nation's critical transportation infrastructure and installations at home and abroad.
- 7. Due to the lack of specificity of method, target, and timing, the Homeland Security Advisory System threat level will remain at yellow-elevated, at this time.
- 8. U.S. DOT reminds the transportation industry to report information concerning suspicious activity to their local FBI office through the FBI website at http://www.fbi.gov/contact/fo/fo.htm or to the National Infrastructure Protection Center (NIPC) at its website at http://www.nipc.gov/incident/cirr.htm. The maritime industry should contact the National Response Center (NRC) to report suspected and actual terrorist incidents at 800-424-8802 or 202-267-2675.
- 9. U.S. merchant vessels and cruise ships should be on a heightened state of security, should closely monitor the National Imagery and Mapping Agency's (NIMA) broadcast warnings and should review the emergency communication procedures for assistance in NIMA Publication 117.
- 10. All U.S.-flag ships required by regulation to file Amver position reports and operating in the north Arabian Sea, Gulf of Oman, Persian Gulf, Gulf of Aden, Red Sea and the Suez Canal are reminded to file Amver position reports every 24 hours vice every 48 hours.
- 11. All U.S.-flag operators are required to forward this Advisory to their ships by the most expedient means. This Advisory will subsequently be published in the weekly "Notice to Mariners" and MARAD internet website at http://www.marad.dot.gov/headlines/.
- 12. This Advisory cancels and replaces MARAD Advisory 01-06.
- 13. All U.S.-flag operators are advised that they can contact the Maritime Administration for information and assistance regarding vessel operations especially if they have security concerns. For further information regarding this Advisory contact the Maritime Administration, Office of Ship Operations, Code MAR-613, Room 2123, 400 7th Street SW, Washington, DC 20590; Telephone 202-366-5735, or by email to opentr1@marad.dot.gov.

(Supersedes NTM 1(50)02)

(U.S. MARITIME ADMINISTRATION)

(51) NAVIGATION RULES, INTERNATIONAL-INLAND.

The latest edition of the Navigation Rules was published in July 1999. This book contains the International Regulations for Preventing Collisions at Sea, commonly called the 72 COLREGS, and the Inland Navigation Rules which supersede the old Inland Rules, Western Rivers Rules, Great Lakes Rules, and other Pilot rules. The book also includes sections on COLREGS demarcation lines, penalty provisions, alternative compliance, and the Vessel Bridge-to-Bridge Radiotelephone Regulations.

PENALTIES: All vessel operators, whether recreational or commercial, are required to understand and follow these Navigation Rules. Violation of the Navigation Rules or negligent operation of a vessel may result in civil penalties up to \$5000.

CARRIAGE REQUIREMENT: The operator of each self-propelled vessel 12 meters or more in length is required to carry on board and maintain for ready reference a copy of the Inland Navigation rules (contained in this publication).

HOW TO ORDER: The Navigation Rules: International-Inland is available from the Government Printing Office for \$14.50. To order by telephone using VISA, MasterCard or Discover Card call (202) 512–1800, ask for the book by name and give GPO stock number 050–012–00407–2, or mail check or money order payable to Superintendent of Documents, to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

(51) NAVIGATION RULES, INTERNATIONAL-INLAND. (Continued).

CHANGES: Changes are published, as they occur, in the Notice to Mariners and appear in Summary of Corrections (Volume 5). For questions concerning the Navigation Rules please write to:

Commandant (G-MWV) U.S. Coast Guard 2100 2nd Street S.W. Washington, D.C. 20593–0001 Telephone: (202) 267–0574.

You may also submit your questions to the USCG website http://www.uscg.mil/vtm/pages/rules.htm. (Supersedes NTM 1(51)02)

(USCG)

(52) IMPROPER USE OF STROBE LIGHTS, SEARCHLIGHTS AND DANGEROUS CARGO LIGHT.

STROBE LIGHTS: The Coast Guard has received reports of the use of white strobe lights as "anticollision" lights and as fishing net markers. A white strobe light is a distress signal in Inland Waters and prohibited under International Rules (except for use as a distress signal on life jackets). Misuse of these lights may result in civil penalties up to \$5000.

SEARCHLIGHTS: Fishing vessels using searchlights while setting and recovering gear, and other vessels using searchlights, are reminded that improper use of searchlights violates both Inland and International Navigation Rules. Examples of violations include: (a) leaving searchlights lit constantly while underway, so as to interfere with visibility of navigation lights and (b) shining at other vessels so as to embarrass them and impair the night vision of other mariners.

DANGEROUS CARGO LIGHT: Warning: foreign vessels operating in the Far East, specifically in the Straits of Malacca, commonly use an all around red light to indicate carriage of a dangerous cargo. In addition, these vessels often use deck security lighting underway to deter piracy; this may obscure the vessel's running lights. U.S. vessels transiting these areas should be aware of these practices and plan accordingly.

NOTE: This notice does not prohibit vessels from using additional lights so long as they cannot be confused with or obscure navigation lights. Mariners are cautioned that all types of high intensity lights, when used at sea, must be properly directed or adequately screened so as to not embarrass another vessel or be misinterpreted. When these lights are not being used for a specific task they should be extinguished.

(Repetition NTM 1(52)02) (USCG)

(53) GUIDELINES FOR WGS DATUM CONVERSION.

- 1. The following information is provided to assist navigators in converting geographic positions from World Geodetic System 1972 (WGS 72) to World Geodetic System 1984 (WGS 84) and vice versa.
 - a. Positions obtained from satellite navigation systems or measured from charts referred to the World Geodetic System 1972 must be moved 0.01 minute eastward and 0.00 minute northward to be placed on the World Geodetic System 1984.
 - b. Positions obtained from satellite navigation systems (or charts) referred to the World Geodetic System 1984 must be moved 0.01 minutes westward and 0.00 minutes southward to be placed on the World Geodetic System 1972.
- 2. Individuals who need somewhat more precise values may use the following tables to minimize the error due to the truncation of transformed coordinates.
- 3. Users with a need for the most accurate transformation from WGS 72 to WGS 84 may use the following transformation equations:

Latitude Shift = $(4.5 \cos \emptyset / a \sin 1") + (f \sin 2 \emptyset / \sin 1")$

= $0.1455 \cos \emptyset + 0.0064 \sin 2 \emptyset$ seconds northward

Longitude Shift = 0.554 seconds eastward

Where: \emptyset = latitude

f = difference in flattening of the ellipsoids = 0.3121057×107 a = semi-major axis of WGS 72 ellipsoid = 6,378,135 meters.

(53) GUIDELINES FOR WGS DATUM CONVERSION. (Continued.

The datum shift from WGS 84 to WGS 72 is computed using the same equation but the direction of the computed shift is reversed—e.g. the latitude shift is southward and the longitude shift is westward.

4. Since the maximum shift only amounts to approximately 17 meters in longitude and 4 meters in latitude on the ground, the shift need not be used to plot positions on charts at scales smaller than 1:50,000.

POSITIONS REFERRED TO WORLD GEODETIC SYSTEM 1972 MUST BE MOVED AS INDICATED TO BE IN AGREEMENT WITH WORLD GEODETIC SYSTEM 1984

```
90N
       0.0000 MINUTES NORTH AND 0.0092 MINUTES EAST
85N
       0.0002 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0005 MINUTES NORTH AND 0.0092 MINUTES EAST
80N
       0.0007 MINUTES NORTH AND 0.0092 MINUTES EAST
75N
70N
       0.0009 MINUTES NORTH AND 0.0092 MINUTES EAST
65N
       0.0011 MINUTES NORTH AND 0.0092 MINUTES EAST
60N
       0.0013 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0015 MINUTES NORTH AND 0.0092 MINUTES EAST
55N
       0.0017 MINUTES NORTH AND 0.0092 MINUTES EAST
50N
45N
       0.0018 MINUTES NORTH AND 0.0092 MINUTES EAST
40N
       0.0020 MINUTES NORTH AND 0.0092 MINUTES EAST
35N
       0.0021 MINUTES NORTH AND 0.0092 MINUTES EAST
30N
       0.0022 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0023 MINUTES NORTH AND 0.0092 MINUTES EAST
25N
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
20N
15N
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
10N
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
5N
0N
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
 5S
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0024 MINUTES NORTH AND 0.0092 MINUTES EAST
10S
15S
       0.0023 MINUTES NORTH AND 0.0092 MINUTES EAST
20S
       0.0022 MINUTES NORTH AND 0.0092 MINUTES EAST
25S
       0.0021 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0020 MINUTES NORTH AND 0.0092 MINUTES EAST
30S
       0.0019 MINUTES NORTH AND 0.0092 MINUTES EAST
35S
40S
       0.0018 MINUTES NORTH AND 0.0092 MINUTES EAST
45S
       0.0016 MINUTES NORTH AND 0.0092 MINUTES EAST
50S
       0.0015 MINUTES NORTH AND 0.0092 MINUTES EAST
55S
       0.0013 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0011 MINUTES NORTH AND 0.0092 MINUTES EAST
60S
65S
       0.0009 MINUTES NORTH AND 0.0092 MINUTES EAST
70S
       0.0008 MINUTES NORTH AND 0.0092 MINUTES EAST
75S
       0.0006 MINUTES NORTH AND 0.0092 MINUTES EAST
       0.0004 MINUTES NORTH AND 0.0092 MINUTES EAST
80S
       0.0000 MINUTES NORTH AND 0.0092 MINUTES EAST
90S
```

POSITIONS REFERRED TO WORLD GEODETIC SYSTEM 1984 MUST BE MOVED AS INDICATED TO BE IN AGREEMENT WITH WORLD GEODETIC SYSTEM 1972

90N	0.0000 MINUTES SOUTH AND 0.0092 MINUTES WEST
85N	0.0002 MINUTES SOUTH AND 0.0092 MINUTES WEST
80N	0.0005 MINUTES SOUTH AND 0.0092 MINUTES WEST
75N	0.0007 MINUTES SOUTH AND 0.0092 MINUTES WEST
70N	0.0009 MINUTES SOUTH AND 0.0092 MINUTES WEST
65N	0.0011 MINUTES SOUTH AND 0.0092 MINUTES WEST

(NIMA)

(53) GUIDELINES FOR WGS DATUM CONVERSION. (Continued.

0.0013 MINUTES SOUTH AND 0.0092 MINUTES WEST 0.0015 MINUTES SOUTH AND 0.0092 MINUTES WEST

0.0017 MINUTES SOUTH AND 0.0092 MINUTES WEST

0.0018 MINUTES SOUTH AND 0.0092 MINUTES WEST 0.0020 MINUTES SOUTH AND 0.0092 MINUTES WEST

0.0021 MINUTES SOUTH AND 0.0092 MINUTES WEST

0.0022 MINUTES SOUTH AND 0.0092 MINUTES WEST

0.0023 MINUTES SOUTH AND 0.0092 MINUTES WEST

0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST

60N

55N 50N

45N

40N 35N

30N

25N

20N

```
15N
       0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST
10N
       0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST
5N
       0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST
0N
       0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST
 5S
       0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST
10S
       0.0024 MINUTES SOUTH AND 0.0092 MINUTES WEST
15S
       0.0023 MINUTES SOUTH AND 0.0092 MINUTES WEST
20S
       0.0022 MINUTES SOUTH AND 0.0092 MINUTES WEST
25S
       0.0021 MINUTES SOUTH AND 0.0092 MINUTES WEST
30S
       0.0020 MINUTES SOUTH AND 0.0092 MINUTES WEST
35S
       0.0019 MINUTES SOUTH AND 0.0092 MINUTES WEST
40S
       0.0018 MINUTES SOUTH AND 0.0092 MINUTES WEST
45S
       0.0016 MINUTES SOUTH AND 0.0092 MINUTES WEST
50S
       0.0015 MINUTES SOUTH AND 0.0092 MINUTES WEST
55S
       0.0013 MINUTES SOUTH AND 0.0092 MINUTES WEST
60S
       0.0011 MINUTES SOUTH AND 0.0092 MINUTES WEST
65S
       0.0009 MINUTES SOUTH AND 0.0092 MINUTES WEST
70S
       0.0008 MINUTES SOUTH AND 0.0092 MINUTES WEST
75S
       0.0006 MINUTES SOUTH AND 0.0092 MINUTES WEST
80S
       0.0004 MINUTES SOUTH AND 0.0092 MINUTES WEST
90S
       0.0000 MINUTES SOUTH AND 0.0092 MINUTES WEST
```

(54) ANTI-SHIPPING ACTIVITIES MESSAGE.

(Repetition NTM 1(53)02)

The Anti-Shipping Activities Message (ASAM) database, a part of the Maritime Safety Information Division website is a National Imagery and Mapping Agency service for mariners providing reports of hostile actions directed against ships. The ASAM database was developed at the request of the U.S. Interagency Working Group on Piracy and Maritime Terrorism. It contains random reports of various forms of aggression against shipping around the world. Events are categorized by date and by geographic area and are based on the NIMA subregion system. The user can submit an ASAM, with the full particulars of an incident to be reported, or search the existing ASAM database by user-defined queries via the Maritime Safety Information Division website (http://pollux.nss.nima.mil). Upon receipt of the ASAM at NIMA, the text is reviewed and evaluated for further action, edited, and stored in the ASAM database for access by all customers. The database can be used as a voyage planning tool by providing cautionary information to ship owners and masters concerning security conditions in and near ports and narrow channels around the world. Examples of ASAM Reports in this file include the ACHILLE LAURO incident, robberies of ships transiting the Malacca Straits, attacks on fishing boats and merchants ships coasting off Western Sahara, and certain events occurring in and around the Persian Gulf. When sending a hostile action report the user of ASAM should provide NIMA with as much of the following information as is possible:

- 1. Date of Occurrence:
- 2. Geographic Location;
- 3. Known or Suspected Aggressor;
- 4. Victim (Ship's) Name;
- 5. A detailed description of the occurrence being reported.

(54) ANTI-SHIPPING ACTIVITIES MESSAGE. (Continued).

For further information on the ASAM database users may contact (301) 227-3173 or write:

MARITIME SAFETY INFORMATION DIVISION (PTNM) ST D 44 NATIONAL IMAGERY AND MAPPING AGENCY 4600 SANGAMORE ROAD BETHESDA, MD 20816-5003

Recent reports have stated there are 700 identifiable terrorist groups who have committed more than 8000 major acts of political violence since 1962. In one recent year there were 450 such actions against ships around the globe. Subregions that cover the crossroads of the world are more active with anti-shipping activities than some remote areas. Note that the ASAM file is only an indicator of hostile actions reported to NIMA and is not a complete listing of all hostile actions that have occurred worldwide. NIMA strongly urges the mariner to assist in the population of the ASAM database by sending reports of hostile actions.

(Repetition NTM 1(54)02) (NIMA/PTNM)

(55) CAUTION ON ANNOUNCEMENT OF NEW CHARTS AND PUBLICATIONS.

CAUTION: DO NOT USE A NEW CHART OR PUBLICATION UNTIL IT IS ANNOUNCED IN NOTICE TO MARINERS. There may be occasions when a new edition of a chart or publication is received prior to the official announcement of its release being published in Notice to Mariners. Since Notice to Mariners corrections are for specific editions of products, it is imperative that the user neither discard the previous edition nor use the new edition until this official announcement is received. Further, since Notice to Mariners corrections are for specific editions of products, it is critical that the user update only the specifically-referenced product edition. Additionally, users of the NIMA website are advised that announcements of new editions in this system appear approximately two weeks ahead of the printed Notice to Mariners. (Repetition NTM 1(55)02)

(56) GLOBAL POSITIONING SYSTEM (GPS) AND DIFFERENTIAL GPS (DGPS) INFORMATION.

The Global Positioning System (GPS) is a satellite-based radionavigation system with continuous worldwide coverage. It provides navigation, position, and timing information to air, marine, and land based users. GPS is operated and controlled by the Department of Defense (DoD) under Air Force management. Although originally intended for military use only, federal radionavigation policy has established that the GPS Standard Positioning Service (SPS) will be available for civil use.

GPS Initial Operational Capability (IOC) was established on December 8, 1993. At IOC, the GPS achieved its operational configuration for providing SPS. Full Operational Capability (FOC) to meet operational military functionality was achieved July 17, 1995. Computer programs are available from commercial sources so that interested users can determine the availability and quality of GPS coverage at their particular location.

The U.S. Coast Guard is the Government interface for civil users of GPS. The Coast Guard established the Navigation Information Service (NIS), as a part of the Coast Guard Navigation Center (NAVCEN) located in Alexandria, Virginia, to meet the needs of the civil user. The information provided includes planned, current or recent satellite outages, constellation changes, user instructions and tutorials, system status, information about Coast Guard provided radionavigation systems, and information about federal radionavigation policy and systems.

Whenever possible, advance notice of GPS satellite outages will be provided by the DoD and made available by the U.S. Coast Guard. Any planned disruption of the Standard Positioning Service (SPS) in peacetime will be subject to a minimum 48 hour advance notice provided by the DoD to the Coast Guard Navigation Center's Navigation Information Service (NIS). The NIS advisory services are updated whenever new information is received.

NIS services are described below:

1. Watchstanders are available 24 hours to answer phones (703) 313-5900, email nisws@navcen.uscg.mil and fax (703) 313 5920. The NIS 24 hour voice recording provides access to a 90-second message of the current system status. Forecasted outages, historical outages, and other changes in the GPS are included as time permits. The NIS 24-hour voice recording phone number is (703) 313-5907.

(56) GLOBAL POSITIONING SYSTEM (GPS) AND DIFFERENTIAL GPS (DGPS) INFORMATION. (Continued).

- 2. The Department of Commerce transmits recorded time information on WWV/WWVH 2.5, 5, 10, 15, and 20 MHz frequencies. During the 40–second interval between time ticks, navigation information is announced by voice. Listen at minute 14 and 15 on WWV and minute 43 and 44 on WWVH for GPS status and current or forecasted outages. Internet access is available from the World Wide Web at http://www.navcen.uscg.gov.
- 3. The NIS disseminates GPS Advisory Broadcast Messages through USCG broadcast stations using VHF-FM voice, HF-SSB voice, and NAVTEX broadcasts. The broadcasts provide the GPS user in the marine environment with the current status of the GPS satellite constellation, as well as any planned/unplanned system outages that could affect GPS navigational accuracy. Information is provided in message format via an established system of message dissemination. NIS provides the GPS Operational Advisory Broadcast information to NIMA for broadcast in NAVAREA, HYDROLANT, or HYDROPAC messages. These messages are generally geared to the deep draft mariner. NIMA also publishes a Weekly Notice to Mariners (NTM) containing USCG Marine Information Broadcasts and NIMA broadcast warnings for a seven—day period.

To comment on any of these services or ask questions about GPS status, contact the NIS at:

Commanding Officer

U.S. Coast Guard NAVCEN

7323 Telegraph Road

Alexandria, VA 22315-3998

NIS Phone: (703) 313-5900

Fax: (703) 313-5920

The Civil GPS Service Interface Committee (CGSIC) was established to address issues and problems that relate to the civil use of GPS. The CGSIC is the official interface between civil GPS users and the GPS operators (DoD). The CGSIC consists of a General Committee, an Executive Panel, and three Subcommittees:

- 1. Timing Information
- 2. International Information
- 3. U.S. States and localities

The CGSIC is chaired by the U.S. Department of Transportation Radionavigation and Positioning Staff. The U.S. Coast Guard Navigation Center (NAVCEN) is the deputy chair and administrator. Points of contact are:

CGSIC Executive Secretariat

Commanding Officer CGSIC

U.S. Coast Guard NAVCEN

7323 Telegraph Road

Alexandria, VA 22315-3998

Phone: (703) 313-5900

Fax: (703) 313-5920

E-mail: rcasswell@navcen.uscg.mil

The program manager for all U.S. Coast Guard civil GPS activities is:

Commandant (G-OPN)

U.S. Coast Guard

2100 2nd St. SW

Washington, DC 20593-0001

Phone: (202) 267-0980 Fax: (202) 267-4222

Additionally, the Coast Guard Navigation Center operates the maritime Differential GPS (DGPS) service. This service is a medium frequency (285 kHz - 325 kHz), all weather, 24-hour a day augmentation to the GPS service that provides localized GPS pseudorange correction factors. DGPS Full Operational Capability (FOC) was achieved March 15, 1999. DGPS provides six second time to alarm integrity for GPS out of tolerance conditions and increased position accuracy. The specified accuracy of DGPS augmented fixes is 10 meters (2drms), though typical results are 1 to 3 meter accuracy. Fifty three (53) maritime sites provide DGPS coastal coverage of the continental US, the Great Lakes, Puerto Rico, the Western rivers, as well as Hawaii and portions of the Alaskan coast.

(56) GLOBAL POSITIONING SYSTEM (GPS) AND DIFFERENTIAL GPS (DGPS) INFORMATION. (Continued).

Information concerning DGPS status, including planned/unplanned system outages, is disseminated through local USCG Broadcast Notice to Mariners, NAVTEX broadcasts, and internet access at http://www.navcen.uscg.gov.

A Nationwide DGPS expansion provides terrestrial users an additional 25 NDGPS sites, with the combined services providing single coverage over more than 80% of the continental US.

(Supersedes NTM 1(56)02) (USCG)

(57) TELEVISION ANTENNAE INTERFERENCE WITH GPS.

It has come to the attention of the U.S. Coast Guard and Federal Communications Commission that certain consumer electronics-grade active VHF/UHF marine television antennas are causing operational degradation in the performance of Global Positioning System (GPS) receivers. This interference may be realized as a display of inaccurate position information or a complete loss of GPS receiver acquisition and tracking ability.

The interference is not limited to the GPS equipment onboard the vessel with the installed active marine television antennae. There have been reports of interference occurring on other vessels and installations operating up to 2000 feet away from vessels using such antennas.

In one particular case, the interference caused the position of the vessel as displayed on the electronic chart to move erratically and dramatically often across large expanses of land. As can be expected, various data displays indicated erroneous information such as excessive speeds. In these instances, the problem would occasionally correct itself while at other times required resetting the system. To the vessel's crew, these annoyances were frustrating and caused concerns that perhaps less obvious inaccuracies were occurring. Ultimately, this affected their confidence in the performance of the GPS and Electronic Chart Display and Information System.

If you are experiencing recurring outages or degradation of your GPS receiver operation, you should perform an on-off test of your TV antenna. If turning off the power to the antenna results in improvement in the GPS receiver performance, the antenna may be the source of interference in the GPS band. In that case, you should contact the manufacturer of the antenna and identify the symptoms.

If the test is not positive and the GPS interference persists, contact the watchstander at the Coast Guard Navigation Information Service at nisws@navcen.uscg.mil or telephone (703) 313-5900.

(Supersedes NTM 1(57)02) (USGC)

(58) DIGITAL SELECTIVE CALLING DISTRESS ALERT.

Digital selective calling (DSC) is a capability offered with some VHF and HF maritime radios, intended to initiate calls and provide distress alert information to the U.S. Coast Guard and other rescue coordination centers. DSC is a major element of the Global Maritime Distress and Safety System (GMDSS), an International Maritime Organization-mandated telecommunications system required on vessels subject to the provisions of the Safety of Life at Sea Convention (SOLAS). All vessels should interconnect their GPS with their DSC radios to provide an accurate position in the event of sending a distress alert. The interconnection of the DSC radio with the GPS is required for SOLAS vessels and is required by the International Telecommunications Union for non-SOLAS vessels.

Coast Guard Communications Stations operate MF and HF DSC, and can be reached using the Maritime Mobile Service Group Identity (MMSI) 003669999. The United States has not declared GMDSS Sea Areas A1 or A2 effective. Medium frequency installations are ongoing. A contract has been awarded for the installation of VHF FM DSC equipment with completion scheduled for 2006. Until then, the Coast Guard cannot receive a VHF DSC distress alert unless a mariner with a DSC-compatible radio receives an alert and relays it to the Coast Guard. Mariners receiving a VHF distress alert should attempt to contact the vessel sending the distress alert and obtain information concerning the distress, and then contact the Coast Guard to pass on this information. The Coast Guard will treat these alerts as legitimate distress calls. Continue listening on the working channel to ensure communications between the Coast Guard and ship in distress is established. Finally, be ready to provide further assistance if asked by the Coast Guard.

(Supersedes NTM 1(58)02) (USCG)

(59) VESSEL SQUAT IN SHALLOW WATER.

The following discussion is primarily aimed towards mariners who are navigating ocean-going commercial vessels on approaches to ports, where water depths are beginning to shoal (less than 3 times the ship's draft). The discussion describes the phenomenon of "squat" and is intended to help mariners recognize circumstances where it could significantly affect the navigational draft of their vessels.

In August 1992, a 950-foot passenger liner ran aground in an area where the charted depth of 39 feet was more than 7 feet greater than the vessel's maximum calculated draft. One major contributing factor was that neither the master nor the pilot adequately judged the considerable squatting effect (sinkage & trim) caused by the high-speed transit (24.5 knots) in relatively shallow water (which was about 1.22 times the ship's draft).

DISCUSSION OF SQUAT: The term "squat" describes the combination of sinkage (overall settling of the hull) and trim (the bow up/down rotation of the hull). This phenomenon occurs in waters of any depth, but is particularly affected by the proximity to the sea floor. Therefore, the effects of squat become more pronounced in shallow and/or restricted waters (such as canals or dredged channels). As a ship moves forward, water must quickly flow around and under the hull to fill the void left behind. This accelerated water flow affects the pressure distribution along the hull. Consequently, the vessel squats, effectively increasing its draft and trim. Depending upon the vessel's speed and hull form, the ship may trim by either the bow or the stern. Generally, full-bodied hulls (where C_b >0.7, such as tankers) tend to trim by the bow, whereas fine-bodied hulls (such as container ships) tend to trim by the stern.

SHALLOW WATER EFFECTS: Shallow water affects a ship in two manners: squat (which increases the effective draft at bow and/or stern), and maneuverability (which reduces maneuvering responses compared to open, deep water performance). Also, the faster the vessel's speed, the greater the magnitude of the effects.

CALCULATION OF SQUAT: Squat is a function of the vessel's speed through the water, the ratio of ship draft to water depth, the ratio of cross-sectional areas of the hull and channel, the block coefficient of the hull, and other factors. Formulas for predicting squat for any particular ship are complex and may not be practical for direct use by mariners. However, a useful "rule of thumb" can be used as long as mariners understand its limitations, as discussed below.

In general, shallow water effects can begin to appear when water depth is less than 3 times the vessel's draft, and can become significant by the time water depth is less than 1.5 times the draft. For a ship in unrestricted shallow water (i.e., not within the confines of a dredged channel or canal), a conservative rule-of-thumb for estimating squat is:

$$S = 0.033C_bV^2$$

[where: s = squat (ft), V = ship speed, including any head current (*knots*), and $C_b = block$ coefficient of hull]. For example: at 15 knots, the squat for a container ship ($C_b = 0.60$) proceeding against a 1-knot head current would be approximately 5.1 feet and for a tanker ($C_b = 0.85$) would be approximately 7.2 feet.

The estimated squat should be added to the deepest calculated draft of the vessel (bow or stern). This rule-of-thumb conservatively overestimates the squat of a ship and is therefore considered to be safe for operational decisions.

However, the above rule-of-thumb is valid only when the ship's speed is less than:

$$V<2.52 \times SQRT(d)$$

[where V = ship speed (kts), and SQRT(d) = square root of the water depth "d" (ft)]. For example: in 50 feet of water, the above squat estimate is valid only if the ship's speed is less than 17.8 knots. As the ship moves into shallower water, the limiting speed will decrease. For example, in 30 feet of water, the limiting speed for the rule-of-thumb reduces to 13.8 knots. If the ship's speed is faster than the limiting speed, then the squat prediction is no longer reliable and a greater squat should be assumed. Therefore, if the ship maintains a constant speed as it proceeds into shallower water, it may eventually exceed the limiting speed and experience a significant increase in squat.

If the block coefficient C_b is not known, it may be approximated as follows:

$$C_b = 35 \text{Disp/(LBT)}$$

[where Disp = full-load displacement (long tons), L = length between perpendiculars (ft), B = beam (ft), and T = full-load draft (ft)]. For example, the block coefficient C_b of a container ship 810'L x 106'B x 36'T with a full-load displacement of 51,710 Ltons is approximately 0.59.

(59) VESSEL SQUAT IN SHALLOW WATER. (Continued).

UNDERKEEL CLEARANCE: When evaluating the underkeel clearance in shallow waters, mariners are advised to also take into account the wave-induced motions of the ship (heave and pitch), the uncertainty within their own draft & trim calculations, as well as a prudent margin for uncertainty in the charted water depths (even modern hydrographic surveys may not locate all sea floor obstructions or the shallowest depths). In particular, sudden changes in water depth (such as passing over a shoal area) can cause transient squat effects that can be more substantial than predicted. Similarly, sudden changes in ship speed (acceleration or deceleration) can also cause transient changes in squat. For broad-beamed ships with a relatively "tender" rolling periods (such as modern, post-Panamax container ships), rolling motions can significantly increase drafts at the bilges, in addition to the effects of squat.

MANEUVERABILITY: In addition to squat, the mariner should also be aware that shallow water may increase turning diameter. Modeling of tankers has shown an increase in turning diameter of 60% to 100% in water less than 1.25 times the ship's draft. Hydrodynamic effects such as yawing and sheering should also be taken into account in shallow and restricted waters, especially when passing another vessel. Also, the vessel will require substantially more revolutions to maintain the same speed (during sea trials with a 270-foot destroyer drawing 8 feet of water, the ship required 400 rpm to reach 22 knots in 100 feet of water, but nearly 500 rpm to maintain the same speed in 45 feet of water).

RESTRICTED WATERS: When the ship is transiting shallow restricted waters (such as a dredged channel within a shallow bay), the hydrodynamic flow around the hull is confined by the banks of the channel, creating a different pressure distribution and aggravating the squat condition (usually by increasing the stern squat). The squat estimated by the above "rule of thumb" should be doubled. Maneuverability is also further degraded; which is of particular concern when passing (meeting or overtaking) another vessel in the waterway or when maneuvering near banks or in channel curves.

RECOGNIZING SHALLOW WATER EFFECTS: Signs that a ship has entered shallow water conditions can include one or more of the following:

- Vibration increases suddenly,
- Engine loads down and revolutions decrease,
- Wavemaking increases, especially at the bow,
- Ship becomes more stable and slower to respond to controls,
- Echo sounders indicate a change in clearance or depth,
- The shaft horsepower (shp) speed decreases at the same engine revolutions,
- Water flow around the ship changes, and water color darkens (possibly indicating entrained mud).

REGULATIONS: The Code of Federal Regulations (CFR) requires that the person directing the movement of the vessel set the vessel's speed with consideration for the tendency of the vessel underway to squat and suffer impairment of maneuverability when there is small underkeel clearance [33 CFR 164.11(p)(3)]. In addition, the International Maritime Organization recommends that ships be provided with a bridge poster, a pilot card, and a maneuvering booklet. These should include information on the squat and maneuvering characteristics for that particular vessel [see also USCG Navigation Safety Inspection Circular 7-89].

For more information, contact:

Commandant, U.S. Coast Guard Naval Architecture Division (G-MSE-2) 2100 Second Street S.W. Washington, D.C. 20593-2967 Telephone: (202) 267-2988

(Supersedes NTM 1(59)02)

(USCG)

(60) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS.

The purpose of this information is to provide mariners with the details of the promulgation of Maritime Safety Information (MSI) via the Global Maritime Distress and Safety System (GMDSS) by U.S. information providers, namely the National Imagery and Mapping Agency (NIMA), the U.S. Coast Guard (USCG), and the National Weather Service (NWS).

The equipment needed to receive MSI is a GMDSS type-approved Inmarsat-C transceiver for SafetyNET broadcasts via Inmarsat satellites and a NAVTEX receiver for Coastal Warnings. SafetyNET is an international service for the broadcast and automatic reception of MSI by means of direct printing through Inmarsat's Enhanced Group Call (EGC) system. NAVTEX is

(60) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS. (Continued).

an internationally coordinated system for the automatic reception of MSI via MF 518 kHz. The area of coverage for the United States is NAVAREA/METAREA IV and XII for SafetyNET and for NAVTEX, approximately 200 nautical miles from each NAVTEX station (see graphic, page I-1.61). Additionally, the NWS is providing further coverage for NAVAREA/METAREA XVI (Peru) for weather forecasts and warnings.

The major categories of MSI in the United States for both SafetyNET and NAVTEX are:

- a. navigational warnings (including electronic navigation system messages such as Loran-C and GPS)
- b. meteorological warnings
- c. ice reports
- d. search and rescue information
- e. meteorological forecasts

The following table details the scheduled times for the U.S. information providers and what types of broadcasts are being sent. For a depiction of the Inmarsat satellite footprints overprinted on the worldwide NAVAREA/METAREAS, see the graphic on page I-1.37.

In order to ensure that all relevant SafetyNET MSI is received before sailing, it is recommended that the Inmarsat-C receiver remain in operation while the ship is in port. To receive SafetyNET traffic automatically, the ship's receiver must be set up properly at the start of the voyage:

- a. select the appropriate satellite (AOR-W, AOR-E, POR, IOR)
- b. enter extra NAVAREA/METAREA codes in addition to the one that the vessel is currently in, if desired
- c. key in the ship's position and ensure a periodic update (at least every 12 hours is recommended). This determines the NAVAREA/METAREA that will be monitored. If the position is not updated for more than 12 hours, ONLY geographically addressed messages with priorities greater than routine within the entire ocean region will be printed out.

In order to ensure that all relevant NAVTEX MSI is received before sailing, it is recommended that the NAVTEX receiver remain in operation while the ship is in port. To receive MSI automatically via NAVTEX, the ship's NAVTEX receiver must be programmed with the desired NAVTEX stations and subject identifiers.

It is intended that all NAVTEX weather be broadcast with subject indicator "B," for Meteorological Warnings, which cannot be rejected by the NAVTEX receiver, or "E" for routine forecasts. However, this cannot be fully implemented at the present time within the U.S. Therefore, all mariners in U.S. waters should program their NAVTEX receivers to include subject indicator "E" in order to receive both warnings and routine weather forecasts via NAVTEX.

The repetition rates of SafetyNET and NAVTEX messages vary, depending on the type of broadcast and situation. NAVTEX messages are generally repeated at each scheduled time slot until canceled (usually every four hours). SafetyNET weather forecast messages from the NWS normally are sent once unless an unscheduled warning is being issued, in which case an echo is used. The echo is rebroadcasted six minutes after the initial transmission to give vessels which are transmitting at the time of the initial broadcast another opportunity to receive the message.

NIMA promulgates all of its SafetyNET messages (which do not have a known cancellation within 24 hours of the initial broadcast) once each day until canceled. Those messages canceling others and those with a known expiration within 24 hours are sent only once.

For search and rescue, the USCG determines the repetition of the broadcast depending upon the type of incident, area of the incident, and known potential rescue vessels.

The USCG's International Ice Patrol, which sends SafetyNET messages concerning the status of ice in the Atlantic Ocean, sends its traffic once.

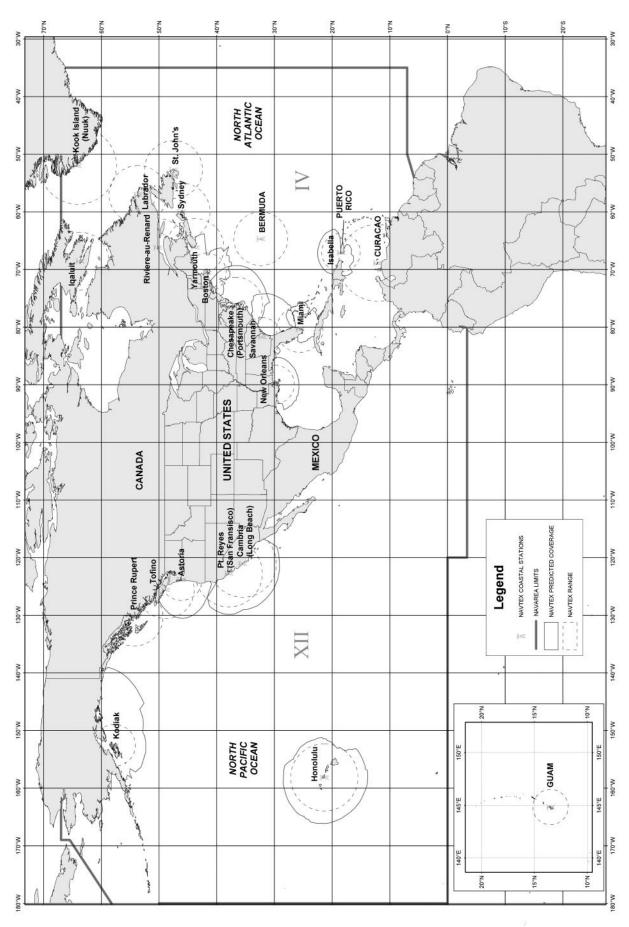
All type-approved Inmarsat SafetyNET and NAVTEX receivers are designed to suppress redundant copies of correctly copied messages For further discussion of GMDSS and its many aspects, users are encouraged to read the appropriate chapter in The American Practical Navigator (Bowditch) and/or in Publication 117, Radio Navigational Aids. Pub. 117 also lists indepth worldwide GMDSS coverage. Other valuable GMDSS reference sources include:

IMO Newsletters NOAA Mariners Weather Log (http://www.vos.noaa.gov) USCG Amver Bulletins USCG Local Notice to Mariners British Admiralty List of Radio Signals, Volumes 3 and 5 Many commercial maritime magazines

(60) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS. (Continued).

SCHEDULED BROADCAST TIMES

WHAT	WHO	WHEN (UTC)	HOW	NAVAREA/ METAREA	SATELLITE
High seas warnings and forecasts	NWS	0430, 1030, 1630, 2230	SafetyNET	IV	AOR-W
High seas warnings and forecasts	NWS	0545, 1145, 1745, 2345	SafetyNET	XII	AOR-W/POR
High seas warnings and forecasts	NWS	0515, 1115, 1715, 2315	SafetyNET	XVI	AOR-W
Hurricane advisories West Atlantic	NWS	as required	SafetyNET	IV	AOR-W
Hurricane advisories East Pacific	NWS	as required	SafetyNET	XII	POR/AOR-W
Hurricane advisories Central Pacific	NWS	as required	SafetyNET	XII	POR
Long range navigational warnings	NIMA	1000, 2200	SafetyNET	IV	AOR-W
Long range navigational warnings	NIMA	1030, 2230	SafetyNET	XII	POR/AOR-W
Long range search and rescue	USCG	upon receipt	SafetyNET	IV/XII	AOR-W/POR
Coastal MSI	USCG	4 to 6 times daily for routine traffic; upon receipt for distress	NAVTEX	Generally, within 200 miles of the coastline	None; see Pub 117 for stations and times
Status of ice in North Atlantic Ocean	USCG	twice daily 0000, 1200	SafetyNET	IV	AOR-W
(Supersedes NTM 1(60)02	2)				(USCG/NIMA)



(61) COAST GUARD SAFETY INFORMATION AVAILABLE ON INTERNET.

The United States Coast Guard Navigation Information Service (NIS), operated by the USCG Navigation Center, provides information for all radionavigation and maritime telecommunications systems. The NIS is staffed 24 hours a day, 7 days a week, providing information on the current operational status, effective policies, and general information for Global Positioning System (GPS), Differential GPS (DGPS), Loran-C, Universal Shipborne Automatic Identification System (AIS), and the Global Maritime Distress and Safety System (GMDSS), including NAVTEX, Digital Selective Calling (DSC), Inmarsat SafetyNET, and other Maritime Safety Information (MSI) broadcasts. Access to this information can be made directly, at no charge, via the Internet at http://www.navcen.uscg.gov.

The NIS also disseminates Safety Broadcasts (BNM), Local Notice to Mariners (LNM) and the latest Notice Advisory to Navstar Users (NANU). NANU notices can also be obtained via e-mail subscription through the USCG Navigation Center website (http://www.navcen.uscg.gov/gps/default.htm). In addition, the NIS investigates all reports of degraded or loss of GPS, DGPS or LORAN-C service. Mariners are encouraged to report all degradation, outages, or other incidents or anomalies of radionavigation services to the NIS via any of the following: Phone: 703-313-5900, E-mail: webmaster@navcen.uscg.mil, or on the World Wide Web at http://www.navcen.uscg.gov.

(Supersedes NTM 1(61)02) (USCG)

(62) NATIONAL OCEAN CLAIMS.

The following list shows national claims of maritime jurisdiction. Publication of this material is solely for information relative to the navigational safety of shipping and in no way constitutes legal recognition by the United States. The information has been compiled from the best available sources.

Country	Territorial Sea	Fisheries or Economic Zone	Contiguous Zone	Continental Shelf
Albania	12*	15		200m or E
Algeria	12*	32-52		
Angola	12	200	24	
Antigua and Barbuda**	12*	200	24	200NM or CM
Argentina	12* (1)	200	24	200NM or CM
Australia	12 (2)	200	24	200NM or CM
The Bahamas**	12	200		200m or E
Bahrain	12		24	
Bangladesh	12*	200	18 (3)	CM
Barbados	12*	200		
Belgium	12	200 (4)		CS (4)
Belize	12 (5)	200		
Benin	200			
Bosnia-Herzegovina	(6)			
Brazil	12* (7)	200 (7)	24	
Brunei	12	200 (8)		
Bulgaria	12* (9)	200	24	200m or E (9)
Burma	12* (10)	200	24 (10)	200NM or CM
Cambodia	12*	200	24 (11)	200NM

(62) NATIONAL OCEAN CLAIMS. (Continued).

Cameroon	12			
Canada	12 (12)	200	24	200NM or CM
Cape Verde**	12*	200	24	200NM
Chile	12	200	24	200/350NM
China	12*	200 (13)	24 (13)	200NM or CS
Colombia	12	200		200m or E
Comoros**	12	200		
Congo(Brazzaville)	200*	(14)		
Congo(Kinshasa)	12	(14)		
Cook Islands	12	200		200NM or CM
Costa Rica	12	200 (15)		200NM
Cote d'Ivoire	12	200		200NM
Croatia	12*			200m or E
Cuba	12 (16)	200		200m
Cyprus	12			200m or E
Denmark	12* (17)	200		200m or E
Djibouti	12 (18)	200	24	
Dominica	12	200	24	
Dominican Republic	6 (19)	200	24	200NM or CM
East Timor	12	200	24	200NM or CM
Ecuador	200 (20)			(20)
Egypt	12* (21)	200	24 (21)	200m or E
El Salvador	200 (22)			
Equatorial Guinea	12	200		
Eritrea	(23)			
Estonia	12 (24)	(24)		
Fiji**	12	200	24	200m or E
Finland	12*(25)	12	6	200m or E
France	12 (26)	200 (26)	24	200m or E
Gabon	12	200	24	
Gambia, The	12	200	18	
Georgia	(27)			
Germany	12	200		200m or E
Ghana	12	200	24	200NM
Greece	6 (28)			200m or E
Grenada	12*	200		

(62) NATIONAL OCEAN CLAIMS. (Continued).

Guatemala	12 (29)	200		200m or E
Guinea	12	200		
Guinea-Bissau	12	200		
Guyana	12*	200		200NM or CM
Haiti	12 (30)	200	24 (30)	E
Honduras	12 (31)	200	24	
Iceland	12	200		200NM or CM
India	12*	200	24 (32)	200NM or CM
Indonesia**	12 (33)	200		
Iran	12*	(34)	24 (34)	(34)
Iraq	12			CS
Ireland	12	200		CS
Israel	12			E
Italy	12 (35)			200m or E
Jamaica**	12	200	24	200NM or CM
Japan	12 (36)	200	24	200NM or CM
Jordan	3			
Kenya	12 (37)	200		200m or E
Kiribati**	12	200		
Korea, North (DPRK)	12* (38)	200	50 (38)	
Korea, South (ROK)	12* (39)	200	24	CS
Kuwait	12			
Latvia	12	200		200m or E
Lebanon	12			
Liberia	200			
Libya	12* (40)			CS
Lithuania	12			
Madagascar	12	200	24	200NM (41)
Malaysia	12 (42)	200		200m or E
Maldives**	12*	200	24	
Malta	12*	25	24	200m or E
Marshall Islands**	12	200	24	
Mauritania	12 (43)	200	24	200NM or CM
Mauritius	12*	200		200NM or CM
Mexico	12 (44)	200	24	200NM or CM
Micronesia, Federated States of	12	200		

(62) NATIONAL OCEAN CLAIMS. (Continued).

Monaco	12			
Morocco	12	200	24	200m or E
Mozambique	12	200		
Namibia	12	200	24	200NM or CM
Nauru	12	200	24	
Netherlands	12* (45)	200		
New Zealand	12 (46)	200 (46)	24	200NM or CM
Nicaragua	200*		25	
Nigeria	12	200		200m or E
Niue	12	200		
Norway	4	200	10	200NM or CM
Oman	12*	200	24	
Pakistan	12* (47)	200	24 (47)	200NM or CM
Palau	3	200		
Panama	12(48)	200	24	200NM or CM
Papua New Guinea**	12	200		200m or E
Peru	200 (49)			200
Philippines**	* (50)	200		E
Poland	12 (51)	200 (51)		
Portugal	12 (52)	200	24	200m or E
Qatar	12	(53)	24	CS
Romania	12*	200	24	200m or E
Russia	12	200		200m or E
Saint Kitts and Nevis	12	200	24	200NM or CM
Saint Lucia	12	200	24	200NM or CM
Saint Vincent and the Grenadines**	12*	200	24	
Samoa	12	200		
Sao Tome and Principe**	12	200		
Saudi Arabia	12 (54)		18 (54)	CS
Senegal	12	200	24	200NM or CM
Seychelles**	12*	200	24	200NM or CM
Sierra Leone	200			200NM
Singapore	3			
Slovenia	* (55)			
Solomon Islands**	12	200		200NM
Somalia	200*			

(62) NATIONAL OCEAN CLAIMS. (Continued).

South Africa	12	200	24	200NM or CM
Spain	12 (56)	200 (56)	24	
Sri Lanka	12* (57)	200	24 (57)	200NM or CM
Sudan	12*		18 (58)	200m or E
Suriname	12	200		
Sweden	12 (59)	200		200m or E
Syria	35*		41 (60)	200m or E
Tanzania	12	200		
Thailand	12 (61)	200		
Togo	30	200		
Tonga	12 (62)	200		200m or E
Trinidad and Tobago **	12	200	24	200NM or CM
Tunisia	12 (63)		24	
Turkey	(64)	200 (64)		
Tuvalu	12	200	24	
Ukraine	12	200		200m or E
United Arab Emirates	12*	200 (65)	24	200NM or CM
United Kingdom	12	200 (66)		Defined by coordinates
United States	12	200 (67)	24	200NM or CM
Uruguay	12 (68)	200	24	200NM or CM
Vanuatu **	12	200	24	200NM or CM
Venezuela	12	200	15 (69)	200m or E
Vietnam	12* (70)	200	24 (70)	200NM or CM
Yemen	12* (71)	200	24 (71)	200NM or CM
Yugoslavia	12			

Abbreviations:

CS - Continental Shelf (no specified limits)

CM - Continental Margin E - Limit of Exploitation m - meters (depth) NM - nautical miles

FOOTNOTES

Security Zone - A state claim to control activity beyond its territorial sea for security reasons unrelated to that state's police powers in its territory, including its territorial sea. This Summary lists only those Security Zones which presently claim to restrict navigation and overflight activities conducted exclusively beyond their claimed territorial seas. A claim of right of surveillance beyond the territorial sea or a claim of the right of "hot pursuit" in enforcing violations of law which occur in a

^{*} Indicates a state which requires advance permission or notification for innocent passage of warships in the territorial sea. The United States does not recognize this requirement.

^{**} Indicates an archipelagic state.

(62) NATIONAL OCEAN CLAIMS. (Continued).

state's territorial sea, inland waters, or land territory does not constitute a claimed Security Zone.

Fishery zones not extending beyond a claimed territorial sea or EEZ are encompassed within the territorial sea or EEZ and not listed separately.

Many coastal nations have established straight baselines or have asserted historic waters claims. These footnotes mention some of the more significant ones. It exceeds the scope of this Summary, however, to provide an exhaustive list of baseline and historic waters claims. Accordingly, users should refer to other sources of information to obtain a complete compendium of maritime claims.

- 1. Argentina. Claims San Matias Gulf (Golfo San Matias), Nuevo Gulf (Golfo Nuevo) and San Jorge Gulf (Golfo San Jorge) as internal waters and claims, jointly with Uruguay, the Rio de la Plata estuary as internal waters.
- 2. Australia. Claims Anxious, Rivoli, Encounter and Lacepede Bays as historic waters.
- 3. Bangladesh. Contiguous Zone also considered a Security Zone. Nuclear-powered vessels and vessels transporting nuclear materials or other radioactive substances are required to give notice prior to entering territorial sea.
- 4. Belgium. Fishery zone and CS extend to median line equidistant from baseline of neighbors.
- 5. Belize. From the mouth of the Sarstoon River to Ranguana Cay, Belize's territorial sea is 3NM; according to Belize's Maritime Areas Act, 1992, the purpose of this limitation is "to provide a framework for the negotiation of a definitive agreement on territorial differences with the Republic of Guatemala."
- 6. Bosnia-Herzegovina. No information on maritime claims is available.
- 7. Brazil. Claims to require permission for more than 3 warships of same flag to be in territorial sea at same time. Military exercises can be carried out in EEZ only with Brazil's consent.
- 8. Brunei. 200NM or median EEZ.
- 9. Bulgaria. In territorial sea and internal waters, foreign submarines shall be required to navigate on the surface. Innocent passage of warships limited to designated sea lanes. CS limits will be established by agreement between states with adjacent or opposite coasts on Black Sea on basis of international law.
- 10. Burma. Claims as internal waters all waters inside a 223NM baseline closing Gulf of Martaban as well as waters inside straight baselines connecting coastal islands. Contiguous Zone also considered a Security Zone.
- 11. Cambodia. Contiguous Zone also considered a Security Zone.
- 12. Canada. Claims as internal waters all waters between its islands in the Arctic; also claims Hudson Bay as a historic bay.
- 13. China. Claims right to create safety zone around any structure in EEZ, right to require prior authorization to lay submarine cables and pipelines, and right to broad powers to enforce laws in the EEZ. Contiguous Zone also considered a Security Zone.
- 14. Congo. Fishery zone limits to be fixed in coordination with neighboring states.
- 15. Costa Rica. Permit required for foreign flag fishing vessels to transit Costa Rican waters.
- 16. Cuba. Claims straight baselines enclosing varying distances of water between Cape Frances (Cabo Frances), the Isle of Pines (Isla de la Juventud) (notable are those enclosing 21-35.6N and 79-50.5W), Breton Cay (Cayo Breton) and Cape Cruz (Cabo Cruz) as internal waters.

(62) NATIONAL OCEAN CLAIMS. (Continued).

- 17. Denmark. No prior notification required in straits, unless more than 3 warships at once. Includes Greenland and Faroe Islands. Straight baselines have the effect of enclosing waters between the Faroe Islands. Drogden and Hollænderdyb claimed as internal waters. 3NM territorial sea for Faroe Islands and Greenland.
- 18. Djibouti. Nuclear-powered vessels and vessels transporting nuclear materials or other radioactive substances are required to give notice prior to entering territorial sea.
- 19. Dominican Republic. Claims Samana, Ocoa, Neiba, Escocesa and Santo Domingo Bays as historic bays; Samana, Ocoa and Neiba bays qualify as juridical bays.
- 20. Ecuador. Straight baselines have the effect of enclosing waters between the Galapagos Islands. Claims right to enforce environmentally-based navigational restrictions in the vicinity of the Galapagos. Beyond 200NM, CS claimed along the undersea Carnegie Ridge (measured 100 miles from the 2500m-depth isobath).
- 21. Egypt. Contiguous Zone also considered a Security Zone. Claims right to prior permission for entry of nuclear-powered vessels or vessels carrying nuclear materials and foreign ships carrying hazardous or other wastes.
- 22. El Salvador. Claims the right to exercise sovereignty and jurisdiction over the sea, the seabed and seafloor to 200NM. Claims Gulf of Fonseca (Golfo de Fonseca) as a historic bay.
- 23. Eritrea. No information on maritime claims is available.
- 24. Estonia. Nuclear-powered ships must apply for permission 30 days in advance to enter territorial sea. Innocent passage prohibited for ships carrying radioactive materials, explosives and marine pollutants defined as hazardous and certain oil and fertilizer products unless those cargoes are loaded or unloaded in an Estonian port. Fishery zone limits to be fixed in coordination with neighboring states.
- 25. Finland. In the Gulf of Finland territorial sea is 3NM.
- 26. France. Territorial sea limits apply to all French dependencies. EEZ claim includes the following French dependencies: Clipperton Island, French Guiana, French Polynesia, French Southern and Antarctic Lands, Guadeloupe, Glorioso Islands, Juan de Nova Island, Europa Island, Bassas da India, Martinique, New Caledonia, St. Pierre and Miquelon, Tromelin Island, and Wallis and Futuna.
- 27. Georgia. No information on maritime claims is available.
- 28. Greece. Territorial airspace claim extends to 10NM for control of civil aviation.
- 29. Guatemala. Claims Gulf of Amatique (Bahia de Amatique) as a historic bay.
- 30. Haiti. Draws territorial sea limits in a manner which implies straight baselines including across the mouth of the Gulf of Gonave (Golfe de la Gonave). Contiguous Zone also considered a Security Zone.
- 31. Honduras. Claims Gulf of Fonseca (Golfo de Fonseca) as a historic bay.
- 32. India. Contiguous Zone also considered a Security Zone. Claims Gulf of Mannar and Palk Bay as historic waters.
- 33. Indonesia. Submarines must navigate above water level and show national flag. Nuclear vessels and vessels carrying nuclear material must carry documents and adhere to international special preventative measures.
- 34. Iran. Claims security jurisdiction in Contiguous Zone. Fishery zone and CS extend to median line equidistant from baseline of neighbors.
- 35. Italy. Claims the Gulf of Taranto (Golfo di Taranto) as a historic bay.

(62) NATIONAL OCEAN CLAIMS. (Continued).

- 36. Japan. Claims straight baselines. A high seas corridor remains in 5 "international straits": Tsugaru Strait (Tsugaru-kaikyo), La Perouse Strait, Osumi Strait (Osumi-kaikyo) and East and West channels of Tsushima.
- 37. Kenya. Established straight baseline system. Claims Ungwana Bay as a historic bay.
- 38. Korea, North (DPRK). Measures claims from claimed straight baselines, not coastline. Claims a 50/200NM Security Zone within which all foreign vessels and aircraft are banned without permission; it extends to 50NM in the Sea of Japan and to the limit of EEZ in the Yellow Sea.
- 39. Korea, South (ROK). Claims straight baselines. A high seas corridor remains in Korea Strait.
- 40. Libya. Claims the Gulf of Sidra as a historic bay. All merchant ships required to give prior notice of innocent passage.
- 41. Madagascar. CS 200NM or 100NM from 2500m-depth isobath.
- 42. Malaysia. Prior authorization requirement for nuclear-powered ships or ships carrying nuclear material to enter the territorial sea.
- 43. Mauritania. Claims 89NM straight baseline from Cape Blanc (Cap Blanc) to Cape Timiris (Cap Timiris).
- 44. Mexico. No more than 3 foreign warships will be authorized in Mexican ports on each coast at the same time, and no more than one in any given port. Port calls by more than one training vessel can be authorized only if permission is requested three months in advance. Nuclear-powered and nuclear-armed ships are not allowed to enter Mexican territorial waters or dock in Mexican ports.
- 45. Netherlands. Considers the Westerschelde internal waters through which passage requires prior permission. Includes Aruba and the Netherlands Antilles.
- 46. New Zealand. Includes Tokelau. Prohibits entry of nuclear-powered and nuclear armed ships into its ports.
- 47. Pakistan. Foreign supertankers, nuclear-powered ships and ships carrying nuclear materials are required to give prior notification for entry into territorial sea. Contiguous Zone also considered a Security Zone.
- 48. Panama. Claims Gulf of Panama as a historic bay.
- 49. Peru. 200 mile territorial sea is without prejudice to freedom of international communication, "in conformity with the laws and treaties ratified by the state."
- 50. Philippines. In addition to its claim of archipelagic waters, claims as maritime territorial waters areas embraced within the lines described in the 1898 Treaty of Paris as subsequently modified. The resulting territorial sea varies from one-half to 285NM in width.
- 51. Poland. Claims a closing line across Gulf of Gdansk and a fishing zone to the median line in the Baltic. EEZ is determined by lines connecting extreme points of specified lateral limits.
- 52. Portugal. Established straight baselines for various areas along continental coast and Madeira and Azores island groups. Claims Tagus and Sado estuaries and associated bays as historic waters.
- 53. Qatar. Extends to median line with neighboring states.
- 54. Saudi Arabia. Claims power to regulate nuclear-powered vessels in the territorial sea and to require prior authorization for such vessels. Contiguous Zone also considered a Security Zone.
- 55. Slovenia. No information on maritime claims is available.

(62) NATIONAL OCEAN CLAIMS. (Continued).

- 56. Spain. Claims to control transit passage by aircraft and exercise pollution control over vessels in international strait. Claims 200NM Economic Zone in Atlantic only.
- 57. Sri Lanka. Contiguous Zone also considered a Security Zone. Claims Palk Bay, Palk Strait and Gulf of Mannar as historic waters.
- 58. Sudan. Contiguous Zone also considered a Security Zone.
- 59. Sweden. Territorial sea claim is less than 12NM (but varying) in certain areas of the Skagerrak, the Kattegat and the Baltic.
- 60. Syria. Claims Security Zone 6 miles beyond territorial sea limit.
- 61. Thailand. Claims inner Gulf of Thailand as a historical bay to 12°35'45"N.
- 62. Tonga. Claims 12NM territorial sea for Minerva Reef.
- 63. Tunisia. Claims straight baselines enclosing Gulf of Tunis (Khalij Tunis) and Gulf of Gabes (Khalij Gabes) as internal waters.
- 64. Turkey. Claims a 12NM territorial sea in the Black Sea and in the Mediterranean and a 6NM territorial sea in the Aegean. EEZ is claimed in the Black Sea.
- 65. United Arab Emirates. EEZ extends to agreed CS boundaries or to median lines.
- 66. United Kingdom. Fishery claims include Ascension, Bermuda, British Virgin Islands, Cayman Islands, Ducie and Oeno Atolls, Henderson Island, Pitcairn Island, St. Helena, Tristan da Cunha, Turks and Caicos Islands. Has also established a fishing zone around the Falkland/Malvinas Islands; although 200NM wide, the zone is only enforced to a distance of 150NM.
- 67. United States. EEZ applies to Northern Marianas (consistent with the Covenant), American Samoa, Guam, Puerto Rico, U.S. Virgin Islands and other U.S. possessions and territories.
- 68. Uruguay. Claims, jointly with Argentina, the Rio de la Plata estuary as internal waters.
- 69. Venezuela. Claims 15NM Security Zone.
- 70. Vietnam. Claims half of the Gulf of Tonkin as historic internal waters and uses straight baselines for measuring the territorial sea. Baselines purport to enclose portions of the South China Sea up to approximately 75NM in width as internal waters. Contiguous Zone also considered a Security Zone.
- 71. Yemen. Claims notice requirement for warships, nuclear-powered vessels and vessels transporting nuclear materials or other radioactive substances prior to entering the territorial sea. Contiguous Zone also considered a Security Zone. (Supersedes NTM 1(62)02) (DEPT. OF STATE)

I-1.70

(63) U.S. ECONOMIC SANCTIONS: CONCERNS FOR MARINERS.

The Office of Foreign Assets Control ("OFAC") of the U.S. Department of the Treasury administers and enforces economic and trade sanctions based on US foreign policy and national security goals against targeted foreign countries, terrorists, international narcotics traffickers, and those engaged in activities related to the proliferation of weapons of mass destruction. Many of these programs directly impact mariners.

GENERAL CONCERNS FOR MARINERS:

U.S.-registered vessels and other vessels subject to U.S. jurisdiction, U.S. individuals (citizens or residents wherever located, and individuals located in the United States) and U.S. businesses (including their foreign branches and foreign firms' U.S. locations) are generally prohibited from providing maritime transportation, vessel chartering, brokerage services, marine insurance, or reinsurance services involving:

- Unlicensed shipments of goods where the country of origin is subject to a trade embargo;
- Unlicensed shipments of goods to or from countries subject to a trade embargo;
- Carriage of passengers to or from Cuba, Libya and Iran;
- The carriage of passengers who are nationals of Cuba;
- Shipments of goods in which there is an interest of a target government or a Specially Designated National of a country subject to comprehensive sanctions or, in the case of Cuba, an interest of any of their nationals;
- Waterborne transportation services to unapproved locations in Angola;
- The purchase of services or bunkering at ports located within the territory of countries subject to a trade embargo.

It is important to note that U.S. sanctions programs vary considerably and what is prohibited with regard to one country may be permitted or licensable with regard to another.

GENERAL TRADE RESTRICTIONS BY COUNTRY:

The following summary provides a broad overview of trade sanctions administered by OFAC. In cases consistent with U.S. foreign policy, OFAC may issue licenses permitting transactions that would otherwise be prohibited. The exportation of pre-existing informational materials (such as books, publications, certain works of art, films etc.) is permitted to all countries except Iraq.

Please note that certain transactions may also be subject to licensing requirements of other U.S. government agencies (e.g. U.S. Departments of Commerce, State or Energy).

CUBA- No exportation or reexportation of goods, services, or technology to Cuba, except food, medicine, medical equipment, or agricultural commodities licensed by the U.S. Department of Commerce; no importation of goods or services from Cuba; no dealing in Cuban-origin goods or in property in which the Government of Cuba or a Cuban national has an interest; no brokering of Cuban trade contracts; no use, brokering, or insuring of Cuban-owned vessels. No vessel that enters a Cuban port to engage in the trade of goods or the purchase of services may enter a U.S. port to load or unload freight for a period of 180 days following departure from Cuba. No vessel carrying goods or passengers to or from Cuba or carrying goods in which Cuba or a Cuban national has an interest may enter a U.S. port with such goods or passengers on board. Travel-related transactions in Cuba require an OFAC license.

NORTH KOREA- Goods of North Korean origin may not be imported into the United States either directly or through third countries, without prior notification to and approval from OFAC.

LIBYA- No exportation of goods, services, or technology to Libya, except agricultural commodities and products, medicine, or medical equipment licensed by OFAC; no importation of goods or services from Libya; no dealing in Libyan-origin goods for export to another country or in property in which the Government of Libya has an interest; no brokering of Libyan trade contracts. Travel and transportation-related transactions to, from, and in Libya require an OFAC license.

IRAN- No exportation or reexportation of goods, services, or technology to Iran, except agricultural commodities and products, medicine, or medical equipment licensed by OFAC (general or specific license); no importation of goods or services from Iran, nor dealing in Iranian-origin goods, except for foodstuffs intended for human consumption (that are classified under chapters 2-23 of the Harmonized Tariff Schedule of the U.S.) and carpets and other textile floor coverings (that are classified under chapter 57 or heading 9706.00.60 of the Harmonized Tariff Schedule of the U.S.); no facilitation of foreign nationals' transactions with Iran; no brokering of unauthorized Iranian trade contracts.

(63) U.S. ECONOMIC SANCTIONS: CONCERNS FOR MARINERS. (Continued).

IRAQ- No exportation or reexportation of goods, services, or technology to Iraq; no importation of goods or services from Iraq; no dealing in Iraqi-origin goods or in property in which the Government of Iraq has an interest; no brokering of Iraqi trade contracts; no transfers to persons in Iraq; participation in UN "Oil for Food Program" involving purchases of oil and sales of food and medicine requires an OFAC license. Travel and transportation-related transactions to, from, and in Iraq require an OFAC license.

SUDAN- No exportation or reexportation of goods, services, or technology to Sudan, except agricultural commodities and products, medicine, or medical equipment licensed by OFAC; no importation of goods or services from Sudan; no dealing in Sudanese-origin goods or in property in which the Government of Sudan has an interest; no facilitation of foreign nationals' transactions with Sudan; no brokering of Sudanese trade contracts.

FEDERAL REPUBLIC OF YUGOSLAVIA MILOSEVIC/BALKANS- No exportation or reexportation of goods, services or technology to designated family members, supporters and members of the regime of former President Slobodan Milosevic or to persons deemed to be destabilizing the Western Balkans region; no importation of goods, services or technology and no brokering or other facilitation of trade with such designated persons; no dealing in property in which such designated persons have an interest. These individuals can be found on OFAC's list of Specially Designated Nationals and Blocked Persons (see below).

ANGOLA (UNITA)- No exportation of arms, arms materiel, petroleum, petroleum products, aircraft, or aircraft components, mining equipment, motorized vehicles, watercraft, spare parts for motorized vehicles or watercraft, mining services, or ground or waterborne transportation services to UNITA or unapproved locations in Angola; no dealings in property in which UNITA has an interest; no importation of uncertified diamonds from Angola.

BURMA (**Myanmar**)- No new investment that includes the economic development of resources in Burma; most trade in goods, services authorized.

LIBERIA- Prohibition on the direct or indirect importation of rough diamonds from Liberia.

SIERRA LEONE- Prohibition on the direct or indirect importation of rough diamonds not controlled through the Certificate of Origin Regime of the Government of Sierra Leone.

SYRIA- No receipt of unlicensed donations from the Government of Syria by U.S. persons; no financial transaction in which a U.S. person knows or has reasonable cause to believe poses a risk of furthering terrorist acts in the United States; normal commercial transactions not affected.

WEAPONS OF MASS DESTRUCTION- No importation of goods, technology, or services produced or provided by certain foreign persons designated by Secretary of State for having promoted the proliferation of weapons of mass destruction.

SPECIALLY DESIGNATED NATIONALS AND BLOCKED PERSONS (SDNs)

As part of its enforcement efforts, OFAC publishes a list of individuals and companies owned or controlled by, or acting for or on behalf of, targeted countries. It also lists individuals, groups, and entities, such as terrorists and narcotics traffickers designated under programs that are not country-specific. Collectively, such individuals and companies are called "Specially Designated Nationals" or "SDNs." U.S. persons are generally prohibited from dealing with SDNs and any property or assets in which an SDN has an interest must be blocked if under the control of a U.S. person.

OFAC JURISDICTION:

All U.S. citizens and permanent residents, companies organized in the United States, foreign branches of U.S. companies, individuals and entities located in the United States (including domestic affiliates of foreign companies), are subject to OFAC regulations. Furthermore, foreign subsidiaries of U.S. companies must comply with the sanctions against Cuba and North Korea. Such persons may not facilitate or assist foreign companies (e.g., as financiers, brokers, or other intermediaries) with transactions in which they themselves could not participate directly, and U.S. employees of foreign companies must ensure that they do not engage in transactions on behalf of their employer which would be prohibited if the company was American. Vessels subject to U.S. jurisdiction include:

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(63) U.S. ECONOMIC SANCTIONS: CONCERNS FOR MARINERS. (Continued).

U.S. flag vessels;

vessels owned or controlled by U.S. companies;

vessels within U.S. waters;

for sanctions against Cuba and North Korea, vessels owned or controlled by foreign subsidiaries of U.S. companies.

SANCTIONS VIOLATIONS-THE PENALTIES:

Potential civil and criminal penalties, as well as the associated negative publicity resulting from a company's violation of U.S. sanctions, can prove to be strong motivational factors in getting a company to devote the appropriate time and resources to implementing quality OFAC compliance procedures. Civil penalties range from \$11,000 to \$1,000,000 per violation; criminal violations of the statutes administered by OFAC can result in corporate and personal fines of up to \$10 million and 30 years in prison.

OFAC LICENSING:

OFAC has the authority to authorize transactions that would otherwise be prohibited under specific sanctions provisions. OFAC's Licensing Division reviews all license applications on a first-in, first-out, case-by-case basis and issues or denies licenses based on U.S. foreign policy and national security goals. The OFAC Licensing Division can be reached at by telephone (202) 622-2480 and by fax (202) 622-1657.

KEEPING CURRENT ON OFAC SANCTIONS PROGRAMS:

All of OFAC's public information documents are updated whenever there is a change to an existing program, or when a new program is announced. OFAC recommends that U.S. persons stay current on OFAC sanctions programs by utilizing some of the following user-friendly electronic resources:

World Wide Web (WWW) Home Page on the Internet- All of OFAC's program "brochures," as well as SDN information, are available free in downloadable camera-ready Adobe Acrobat_◎ "*.PDF" format over the Treasury Department's World Wide Web Server. At the top of the home page, the date of OFAC's last change is displayed and a "What's New" file summarizes the latest sanctions developments. Access is also provided to statutes, United Nations resolutions, Executive Orders, actual *Federal Register* notices, and the entire *Code of Federal Regulations* dealing with OFAC. There are two listserv email subscription services available to the public on the site (see below). OFAC's Home Page site is http://www.treas.gov/ofac.

E-mail Subscription Service- OFAC offers two e-mail subscription services that provide subscribers with notices about changes and updates to OFAC's website. These voluntary services allow users to subscribe via the OFAC home page (http://www.treas.gov/ofac) to one of two separate distribution lists: financial operations bulletins geared toward the financial community, or "What's New" notices geared toward the general public (including exporters & importers, practicing attorneys, and researchers).

OFAC Fax-on-demand Service- OFAC operates a free automated fax-on-demand service, which can be accessed 24 hours a day, seven days a week, by dialing 202/622-0077 from any touch tone phone and following voice prompts. The Index lists all of the documents OFAC makes available by fax, and indicates the date each document was last updated.

U.S. Maritime Administration's Website- The U.S. Maritime Administration's website at http://marad.dot.gov contains a special link to OFAC's brochures and information, including a flashing indicator of latest updates.

U.S. Government Printing Office's The Federal Bulletin Board- The U.S. Government Printing Office operates a free bulletin board called "The Federal Bulletin Board" which can be accessed 24 hours a day, 7 days per week, by direct dialing 202/512-1387 from a modem using any communications software or using the Internet to connect to http://fedbbs.access.gpo.gov.

(63) U.S. ECONOMIC SANCTIONS: CONCERNS FOR MARINERS. (Continued).

U.S. Customs Service's Customs Electronic Bulletin Board- The U.S. Customs Service maintains a free Customs Electronic Bulletin Board geared especially toward Customs House Brokers. OFAC's information is available as a date-specific self-extracting DOS file ("OFAC*.EXE" in File Area #15, "Customs Extra!"). Modem access is at 703/440-6155 with voice system support at 703/440-6236.

OUESTIONS-THE OFAC COMPLIANCE HOTLINE:

If you have any questions regarding OFAC-administered sanctions programs, call OFAC's Compliance Hotline at 1-800-540-6322 [(202) 622-2490] on weekdays from 7:30 a.m. to 7:00 p.m. eastern time. OFAC also has a Miami branch office with a special bi-lingual hotline relating to information on the Cuban embargo which can be reached by telephone at (305) 810-5170.

NOTE: This overview is meant to alert mariners to potential issues arising under U.S. sanctions and does not have the force of law. Reference should be made to the controlling legal authorities to determine the applicability of specific prohibitions, exceptions, and licensing provisions. The regulations governing OFAC sanctions programs are found in chapter V of title 31, Code of Federal Regulations. Prior to the issuance of regulations, a new OFAC sanctions program is governed by the relevant Presidential Executive order imposing sanctions and delegating implementation authority to the Secretary of the Treasury. (Supersedes NTM 1(63)02)

(64) MARITIME INDUSTRY REPORTING OF A SUSPECTED OR ACTUAL TERRORIST INCIDENT

In addition to oil and hazardous substance releases, the National Response Center (NRC) must be notified of any suspected or actual terrorist incident (e.g., chemical, radiological, biological, or etiological discharge into the environment) anywhere in the United States and its territories, particularly one affecting transportation systems. Coast Guard units that receive reports of suspected or actual incidents should ensure such reports are reported to the NRC at 800-424-8802 or 202-267-2675. Individuals are encouraged to visit the NRC website (http://www.nrc.uscg.mil) for reporting requirements and other helpful information.

(USCG)

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SECTION I CHART CORRECTIONS

* 1115		10/02 NEW EDITION	1/03		Depth 32 feet Wk [K26]	29°16′07″N 94°29′28″W
	Delete	Platform (Previously published 47/02)	29°28.9′N 88°13.8′W		Tabulation of controlling depths from Subsection I-3	
	Add (NOS)	Position circle "Pipe" [L23] (PA (Previously published 47/02)	A) 28°45.1′N 89°14.2′W	(NOS; US	CH 11324)	
1116		6/9/01 LAST NM 51/02 Stranded wreck (PA)	1/03 29°16.2′N 94°29.8′W	★11324 32Ed. Delete	3/16/02 LAST NM 37/02 Depth 23 feet Depth 30 feet	1/03 29°22′16.9″N 94°48′06.7″W 29°21′10.9″N 94°45′02.4″W
		(See 25/02-1116A)		Substitute	Depth 27 feet Wk [K26] for dat "(5ft rep)" (PA)	ngerous wreck 29°21′48.4″N 94°39′25.2″W
	Add	Depth 5 ½ fathoms Wk [K26] Dangerous wreck [K28] (PA) w	29°16.1′N 94°29.5′W ith legend	Change	Legend to "32 FT JUL 2002 Tu	urning Basin" 29°21′41″N 94°54′55″W
	(NOS)	"Wks"	29°21.8′N 94°39.4′W		Legend to "39 FT JUL 2002"	29°21′46″N 94°54′18″W
1117	A Ed. Delete	4/6/02 LAST NM 51/02 Stranded wreck (PA) (See 28/02-1117A)	1/03 29°16.2′N 94°29.8′W	Add	Depth 25 feet Wk [K26] Depth 19 feet Obstn [K41] Depth 15 feet Depth 27 feet Obstn [K41] Danger circle "Obstn" [K40]	29°21′52.6″N 94°53′29.0″W 29°22′17.4″N 94°48′08.2″W 29°20′52.5″N 94°46′04.0″W 29°21′12.1″N 94°45′04.0″W 29°20′54.7″N 94°42′51.3″W
	Add	Depth 5 1/4 fathoms Wk [K26]	29°16.1′N 94°29.5′W		Tabulation of controlling depth	
	(NOS)	Dangerous wreck [K28] (PA) w "Wks"	ith legend 29°21.8'N 94°39.4'W	(NOS)	Subsection I-3	
1130	00 38Ed. Delete	4/6/02 LAST NM 51/02 Stranded wreck (PA) (See 26/02-11300)	1/03 29°16.2′N 94°29.8′W		11/18/00 LAST NM 47/02 (Page A) Legend to "38 FT JUL 2002" (See 24/02-11326)	1/03 29°36′29″N 95°01′40″W
	Add	Depth 5 1/4 fathoms Wk [K26]	29°16.1′N 94°29.5′W	Add	(Page A, Inset 1) Visibility (range) 4M to range l	
	(NOS)	Dangerous wreck [K28] (PA) w "Wks"	29°21.8′N 94°39.4′W	D .1.	(Page C)	29°45′56.6″N 95°04′59.7″W
1130	1 5 1Ed	10/2/99 LAST NM N46/02	N1/03	Delete	Depth 26 feet Depth 15 feet for 16 feet	29°21′15″N 94°45′09″W 29°20′53″N 94°46′04″W
1150	Add	Buoy "1" G, can Buoy "2" R, nun	27°48′54.5″N 97°12′30.4″W 27°48′52.5″N 97°12′20.1″W	Substitute	Depth 27 feet Wk [K26] for day	
		Buoy "3" G, can Buoy "4" R, nun Buoy "5" G, can	27°48′51.6″N 97°12′21.0″W 27°48′52.5″N 97°12′16.2″W 27°48′51.6″N 97°12′15.1″W	Changa	"(5ft rep)" (PA)	29°21′48″N 94°39′25″W 29°21′42″N 94°54′52″W
	(44/02 CG		27 46 31.0 IN 97 12 13.1 W	Change	Legend to "32 FT 2002" Legend to "39 FT JUL 2002" (See 16/02-11326)	29°21′51″N 94°54′17″W
	08 21Ed. Add (44/02 CG	9/30/00 LAST NM 26/02 (Side A) Buoy "1" G, can	1/03 27°48′54.5″N 97°12′30.4″W	Add (NOS; 46/0	Depth 19 feet Obstn [K41] Depth 27 feet Obstn [K41] Danger circle "Obstn" [K40] Dangerous wreck [K28] (PA) 22 CG8; US CH 11324)	29°22′17″N 94°48′08″W 29°21′12″N 94°45′04″W 29°20′55″N 94°42′51″W 29°21′46″N 94°39′25″W
		1/12/02 LAST NM 46/02 Buoy "1" G, can 8)	1/03 27°48′54.5″N 97°12′30.4″W	★11327 30Ed. Change (NOS)	5/26/01 LAST NM 49/02 Legend to "38 FT JUL 2002" (See 24/02-11327)	1/03 29°36′41″N 95°01′19″W
★113 1	Add	10/20/01 LAST NM 46/02 Buoy "1" G, can Buoy "2" R, nun Buoy "3" G, can Buoy "4" R, nun Buoy "5" G, can	1/03 27°48′54.5″N 97°12′30.4″W 27°48′52.5″N 97°12′20.1″W 27°48′51.6″N 97°12′21.0″W 27°48′52.5″N 97°12′16.2″W 27°48′51.6″N 97°12′15.1″W	, ,	1/12/02 LAST NM 49/02 Visibility (range) 4M to range l	1/03 light, front 29°45′56.9″N 95°05′00.1″W
		(Inset)		Add	(Continuation) Visibility (range) 4M to range l	
	Add	Buoy "1" G, can 27°48′54.5″N 97°12′30.4″W Buoy "2" R, nun 27°48′52.5″N 97°12′20.1″W Buoy "3" G, can 27°48′51.6″N 97°12′21.0″W	27°48′52.5″N 97°12′20.1″W 27°48′51.6″N 97°12′21.0″W	(46/02 CG	8)	29°45′56.9″N 95°05′00.1″W
	(44/02 CG	Buoy "4" R, nun Buoy "5" G, can 8)	27°48′52.5″N 97°12′16.2″W 27°48′51.6″N 97°12′15.1″W	11330 13Ed. Delete	4/21/01 LAST NM 51/02 Stranded wreck (PA) (Supersedes 25/02-11330)	1/03 29°16.2′N 94°29.8′W
★ 1132	23 59Ed. Delete	3/30/02 LAST NM 45/02 Depth 26 feet Dangerous wreck "(5ft rep)" (P.	1/03 29°21′15″N 94°45′09″W A) 29°21′48″N 94°39′31″W	Add (NOS)	Depth 32 feet Wk [K26]	29°16.1′N 94°29.5′W
		Stranded wreck (PA) (See 26/02-11323)	29°16′14″N 94°29′49″W	11340 66Ed. Delete	6/9/01 LAST NM 51/02 Stranded wreck (PA) (See 25/02-11340)	1/03 29°16.2′N 94°29.8′W
	Substitute	Depth 15 feet for 16 feet	29°20′53″N 94°46′04″W	Add	Depth 5 1/4 fathoms Wk [K26]	29°16.1′N 94°29.5′W
	Add	Depth 27 feet Obstn [K41] Danger circle "Obstn" [K40] Depth 27 feet Wk [K26] Dangerous wreck [K28] (PA)	29°21'12"N 94°45'04"W 29°20'55"N 94°42'51"W 29°21'48"N 94°39'25"W 29°21'46"N 94°39'25"W	(NOS)	Dangerous wreck [K28] (PA) w "Wks"	

★11360 40Ed. Delete	10/02 NEW EDITION Platform (Previously published 47/02)	1/0 29°28.9′N 88°13.8″		Depth 41 feet Obstn [K41] for Depth 42 feet Obstn [K41] for	31°57′55″N 80°43′35″W 43 feet Obstn
Add (NOS)	Position circle "Pipe" [L23] (PA (Previously published 47/02)	28°45.1′N 89°14.2″	V Add	Depth 36 feet Depth 44 feet Obstn [K41] Depth 29 feet Obstn [K41]	31°56′34″N 80°40′03″W 31°54′20″N 80°38′00″W 31°56′53″N 80°41′10″W 31°57′14″N 80°44′19″W
11374 31Ed.	8/02 LAST NM 50/02	1/0	3 (NOS)	Depth 37 feet	31°58′15″N 80°42′06″W
Change (NOS)	(Side B) Legend to "30 ft 2002"	30°20′50″N 88°33′53″		. 10/7/00 LAST NM 52/02 Tabulation of controlling depth	1/03 s from
★11375 35Ed. Add	I. 8/02 NEW EDITION 1/03 Tabulation of controlling depths from Subsection I-3 (Previously published 49/02)			Subsection I-3 . 1/12/02 LAST NM 20/02	1/03
Delete		30°21′19.5″N 88°33′52.0″		Depth 38 feet Obstn [K41] for Depth 41 feet Obstn [K41] for	31°57′02″N 80°40′58″W 43 feet Obstn
Substitute	Depth 35 feet for 40 feet	30°21′15.9″N 88°33′53.8″ 30°21′09.8″N 88°34′02.7″ 30°20′33.0″N 88°33′56.2″	V Add	Depth 37 feet Depth 44 feet Obstn [K41] Depth 29 feet Obstn [K41]	31°57′55″N 80°43′35″W 31°58′15″N 80°42′06″W 31°56′53″N 80°41′10″W 31°57′14″N 80°44′19″W
-	Legend to "35 ft 2002" Legend to "34½ ft 2002" Legend to "33 ft 2002" Legend to "27½ ft 2002" (Previously published 50/02)	30°21′23.0″N 88°33′59.0″ 30°21′07.2″N 88°34′07.0″ 30°20′52.0″N 88°34′07.0″ 30°20′56.8″N 88°33′53.5‴	V V 11512 58Ed	. 11/17/01 LAST NM 49/02 Depth 38 feet Obstn [K41] for	31°57′02″N 80°40′58″W
Add	Depth 18 feet Depth 20 feet (Previously published 50/02)	30°21′18.8″N 88°33′52.3″ 30°20′27.2″N 88°33′59.8″		Depth 41 feet Obstn [K41] for Depth 37 feet	43 feet Obstn 31°57′55″N 80°43′35″W 31°58′15″N 80°42′06″W
Change (NOS)	Legend to "30 ft 2002"	30°20′50.0″N 88°33′53.0″	(NOS)	Depth 44 feet Obstn [K41] Depth 29 feet Obstn [K41]	31°56′53″N 80°41′10″W 31°57′14″N 80°44′19″W
★11412 41Ed. Add (NOS)	8/02 LAST NM 45/02 Tabulation of controlling depths Subsection I-3	from 1/0		. 12/23/00 LAST NM 49/02 Depth 38 feet Obstn [K41] for Depth 41 feet Obstn [K41] for	31°57′02″N 80°40′58″W
11415 5Ed. Add	8/02 LAST NM 45/02 Tabulation of controlling depths	1/0 from		Depth 42 feet Obstn [K41] for	43 feet Obstn 31°56′34″N 80°40′03″W
(NOS)	Subsection I-3		Add (NOS)	Depth 44 feet Obstn [K41] Depth 29 feet Obstn [K41] Depth 37 feet	31°56′53″N 80°41′10″W 31°57′14″N 80°44′19″W 31°58′15″N 80°42′06″W
★11416 5Ed. Add (NOS)	8/02 LAST NM 48/02 Tabulation of controlling depths Subsection I-3	from 1/0	3	. 10/02 LAST NM 52/02 Designation of beacon "6" to "	1/03 6MB"
, ,			37°18′05″N 76°18′50″W		
Substitute	10/21/00 LAST NM 35/02 Depth 6 ¹ / ₄ fathoms Obstn [K41] 8 fathoms Obstn Depth 6 fathoms Obstn [K41] fo 6 ¹ / ₄ fathoms Obstn Depth 7 fathoms Obstn [K41] fo 7 ¹ / ₄ fathoms Obstn	31°57.0′N 80°41.0′ 31°54.3′N 80°38.0′	V 12230 59Ed. Delete V (46/02 CG	. 10/02 LAST NM 52/02 HORN from light HORN from light 5)	1/03 38°07′40″N 76°17′24″W 38°01′31″N 76°19′25″W
Add	Depth $4\frac{3}{4}$ fathoms Obstn [K41] Depth $6\frac{3}{4}$ fathoms Obstn [K41] Depth 6 fathoms	31°57.2′N 80°44.3′ 31°57.9′N 80°43.6′ 31°58.2′N 80°42.1′	V Delete	. 7/7/01 LAST NM 40/01 HORN from light HORN from light	1/03 38°07′42″N 76°17′25″W 38°01′31″N 76°19′25″W
(NOS)			(46/02 CG		
	11496 9Ed. 8/22/98 LAST NM N35/02 N1/03 Substitute Depth 6 fathoms for 7 fathoms 1 foot Obstn 31°58.2'N 80°42.1'W		Change V	. 9/02 LAST NM 46/02 Designation of beacon "6" to "	1/03 6MB" 37°18′06″N 76°18′50″W
	Depth 6 fathoms 2 feet Obstn [K 8 fathoms Obstn Depth 7 fathoms Obstn [K41] for 7 fathoms 1 foot Obstn	31°57.0′N 80°41.0′	12280 3Ed	. 7/02 LAST NM 52/02 HORN from light HORN from light	1/03 38°07.7'N 76°17.4'W 38°01.5'N 76°19.4'W
Add (NOS)	Depth 6 fathoms Depth 6 fathoms 5 feet Obstn [K	31°54.3′N 80°38.0″ 31°57.9′N 80°43.6″	V	(5)	
	9/23/00 LAST NM 49/02 Depth 38 feet Obstn [K41] for 4	8 feet Obstn 31°57′02″N 80°40′58″	3 Delete (46/02 CG	. 6/9/01 LAST NM 43/02 (Page A) HORN from light (5)	1/03 38°01′30″N 76°19′25″W

★12327 96Ed. 11/02 NEW EDITION 1/03 (NOS)	13274 24Ed. 5/12/01 LAST NM 52/02 1/03 (Side A)
(NOS)	Change Visibility (range) of light to 18M 43°03′32″N 70°41′45″W
★12334 64Ed. 8/12/00 LAST NM 45/02 1/03 Relocate Buoy "5" from 40°41′14.3"N 74°00′47.2"W to 40°41′13.4"N 74°00′46.5"W	(Side B) Relocate Buoy "2" from 42°20′48″N 70°54′01″W to 42°20′48″N 70°54′04″W
(46/02 CG1)	Add Dangerous wreck [K28] (PA) 42°34′04″N 70°45′03″W
12335 39Ed. 12/8/01 LAST NM 6/02 1/03 Relocate Buoy "5" from 40°41′14.5"N 74°00′47.3"W to	(46/02 CG1)
(46/02 CG1) 40°41′13.4″N 74°00′46.5″W	13275 27Ed. 7/24/99 LAST NM 52/02 1./03 Add Dangerous wreck [K28] (PA) 42°34′04″N 70°45′03″W (46/02 CG1)
*12358 19Ed. 9/02 LAST NM 49/02 1/03 Relocate Light from 41°05′06″N 72°26′46″W to 41°05′06″N 72°26′44″W	13278 25Ed. 12/9/00 LAST NM 9/01 1/03 Change Visibility (range) of light to 18M 43°03′35″N 70°41′46″W
(46/02 CG1)	Add Dangerous wreck [K28] (PA) 42°34′04″N 70°45′03″W (46/02 CG1)
13003 45Ed. 10/28/00 LAST NM 49/02 1/03 Change Visibility (range) of light to 18M 43°03.7′N 70°41.2′W (46/02 CG1)	★13279 29Ed. 1/10/98 LAST NM 21/00 Add Dangerous wreck [K28] (PA) 42°34′04″N 70°45′03″W
13006 30Ed. 7/02 LAST NM 50/02 1/03 Change Visibility (range) of light to 18M 43°03.7′N 70°41.8′W	(46/02 CG1)
(46/02 CG1)	★13283 18Ed. 11/4/00 LAST NM 11/02 1/03 Change Visibility (range) of light to 18M
13009 30Ed. 8/02 LAST NM 49/02 1/03 Change Visibility (range) of light to 18M 43°03.5′N 70°42.0′W (46/02 CG1)	(46/02 CG1) 43°03′31.3″N 70°41′47.5″W
13205 36Ed. 4/14/01 LAST NM 48/02 1/03 Relocate Buoy "BIS" from 41°06′58″N 71°43′15″W to	13286 29Ed. 7/02 LAST NM 50/02 1/03 Change Visibility (range) of light to 18M 43°03′32″N 70°41′47″W (46/02 CG1)
41°06′57″N 71°43′06″W (46/02 CG1)	★14240 6Ed. 1/28/95 LAST NM 34/02 1/03
★13215 17Ed. 10/23/99 LAST NM 48/02 1/03 Relocate Buoy "BIS" from 41°06′58″N 71°43′14″W to	(Plan D) Add Chartlet, depicting changes in hydrography, from Subsection I-3 (10(1236)01 Ottawa)
(46/02 CG1) 41°06′57″N 71°43′06″W	★14823 30Ed. 10/02 NEW EDITION 1/03
13229 27Ed. 7/28/01 LAST NM 52/02 1/03	(NOS)
(Page G) Delete Light "14" 41°42′37″N 70°39′01″W (46/02 CG1)	★14839 35Ed. 1/29/00 LAST NM 37/02 1/03 Add Tabulation of controlling depths from Subsection I-3
13230 45Ed. 3/17/01 LAST NM 45/02 1/03	(NOS)
Delete Light "14" 41°42′38"N 70°39′00"W (46/02 CG1)	★16702 10Ed. 6/13/98 LAST NM 38/02 Delete Depth 19 fathoms 59°54′20″N 147°49′38″W
★13236 29Ed. 11/6/99 LAST NM 45/02 Delete Light "14" 41°42′36.7″N 70°39′01.7″W (46/02 CG1)	Add Depth ¹ / ₄ fathom 59°54′21″N 147°49′19″W Depth 6 ¹ / ₂ fathoms 59°56′41″N 147°46′03″W Depth 9 fathoms 59°54′22″N 147°49′36″W
122(A 2071 4/27/02 1 4 27 NM 70/02	(NOS)
13260 38Ed. 4/27/02 LAST NM 50/02 1/03 Change Visibility (range) of light to 18M 43°03.6′N 70°41.8′W Add Wreck [K29] (PA) 42°29.4′N 70°31.6′W	17360 32Ed. 9/22/01 LAST NM 44/02 1/03 Delete Depth 41 fathoms 56°02.4'N 132°49.4'W
Add Wreck [K29] (PA) 42°29.4′N 70°31.6′W (46/02 CG1)	Substitute Rock awash [K12] for depth 8 fathoms 56°00.8'N 132°35.4'W
13263 7Ed. 4/24/99 LAST NM N49/02 N1/03	Depth 10 fathoms for 12 fathoms 56°03.0'N 132°49.7'W
Change Visibility (range) of light to 18M 43°03.7′N 70°41.7′W	Add Depth 8 1/4 fathoms 56°02.1′N 132°49.4′W
Add Wreck [K29] (PA) 42°29.4′N 70°31.6′W (46/02 CG1)	Depth 10 ½ fathoms 56°02.3′N 132°49.5′W Depth 9 fathoms 56°03.3′N 132°50.8′W (NOS)
*13267 30Ed. 12/1/01 LAST NM 52/02 1/03 Add Dangerous wreck [K28] (PA) 42°34′04″N 70°45′03″W Wreck [K29] (PA) 42°29′24″N 70°31′36″W (46/02 CG1)	★17382 14Ed. 4/26/97 LAST NM 44/02 1/03 Delete Depth 13 fathoms Depth 12 fathoms Depth 8 fathoms 56°03′04″N 132°50′18″W 56°03′02″N 132°49′47″W 56°00′45″N 132°35′25″W
★13270 59Ed. 7/14/01 LAST NM 43/02 1/03 Relocate Buoy "2" from 42°20′48.4"N 70°54′01.0"W to	Substitute Depth 7½ fathoms for 11 fathoms 56°03′12″N 132°49′10″W
(46/02 CG1)	Depth 8½ fathoms for 10 fathoms 56°03′02″N 132°49′00″W
· · · · · · · ·	(continued on next page)

17382 (Cont	inued) Depth 8 1/4 fathoms for 9 1/2 fathoms	Note "AREA TO BE AVOIDED		
	56°03′15″N 132°53′05″W Depth 9 fathoms for 15 fathoms 56°03′18″N 132°50′48″W	Fishing vessels and vessels greater than 500 gross tons shall avoid entering this IMO-designated area." 0°05.0'N 79°30.0'W		
Add	Rock which covers and uncovers (6) [K11]	(NTM0007/2002)		
(NOS)	800/47"N 132°35′24"W 800/47"N 132°35′24"W 100/40 Arrows 132°50′46"W 100/40 Arrows 132°49′22"W 100/40 Arrows 132°49′22"W 100/40 Arrows 132°49′22"W 100/40 Arrows 132°49′25"W 100/40 Arrows 132°49′35"W 100/40 Arrows 132°49′33"W	21036 7Ed. 8/10/96 LAST NM 14/01 1/03 Add "AREA TO BE AVOIDED (SEE NOTE)" [N1.2] bound by purple dashed line joining 4°04.8'N 81°43.3'W 4°04.8'N 81°28.1'W 3°52.2'N 81°28.1'W 3°52.2'N 81°43.3'W		
(1105)		Note "AREA TO BE AVOIDED		
★17401 10Ed. Delete	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Fishing vessels and vessels greater than 500 gross tons shall avoid entering this IMO designated area." 0°10.0'S 78°45.0'W (NTM0007/2002)		
Substitute	Rock awash [K12] for depth $3\frac{1}{4}$ fathoms $56^{\circ}01'27.1''N 132^{\circ}50'45.8''W$	22406 1Ed. 1/1/53 LAST NM N1/02 N1/03		
	Depth $8\frac{1}{4}$ fathoms for $9\frac{1}{2}$ fathoms $56^{\circ}03'14.7''N \ 132^{\circ}53'05.0''W$	Change Chart title "CANAL CONCEPCION Y CANAL OESTE" to "ACCESO OCEANICO		
	Depth 4 fathoms for 5 \(^{1}\) ₄ fathoms 56\(^{\circ}02'47.4''\)N 132\(^{\circ}52'11.5''\)W	A CANAL CONCEPCION" 51°13.0′S 75°52.0′W (3(34)02 Valparaiso)		
	Depth $8\frac{3}{4}$ fathoms for $10\frac{1}{4}$ fathoms $56^{\circ}02'39.1''N 132^{\circ}53'13.2''W$	25524 42F1 5/10/05 1 A ST NW 22/02		
Add	Depth 9 ½ fathoms Depth 8 ½ fathoms Depth 7 ½ fathoms Depth 8 ¼ fathoms Depth 8 ¼ fathoms Depth 8 ¼ fathoms Depth 8 ¼ fathoms Depth 8 ½ fathoms Depth 8 ½ fathoms	25524 43Ed. 6/10/95 LAST NM 33/02 1/03 Add Dangerous wreck [K28] 14°40′24″N 60°50′55″W (4(46)02 Brest)		
	$\begin{array}{llllllllllllllllllllllllllllllllllll$	25525 17Ed. 12/3/94 LAST NM 7/97 Add Dangerous wreck [K28] 14°40′24.1″N 60°50′55.2″W (4(46)02 Brest)		
	Depth 9 ½ fathoms 56°03′00.3″N 132°52′39.4″W Depth 8 ¼ fathoms 56°03′30.4″N 132°54′07.3″W	26323 4Ed. 2/17/96 LAST NM 20/01 1/03 (Plan A)		
(NOS)	Depth 9 ¾ fathoms Depth 6 ¼ fathoms Depth 6 1/4 fathoms Depth 6 1/4 fathoms Depth 6 1/4 fathoms Depth 6 1/4 fathoms Depth 9 3/4 fathoms Depth 9 3/	Change Characteristic of buoy "1" to QG 26°30′56.4"N 78°46′42.8"W Characteristic of buoy "3" to Fl G 5s		
(1103)		Characteristic of buoy '3' to FI R 5s 26°31'01.4"N 78°46'40.2"W Characteristic of buoy "4" to FI R 5s		
	9/22/01 LAST NM 50/02 1/03 Rock awash [K12] for depth 8 fathoms 56°00.8'N 132°35.4'W	26°30′55.3″N 78°46′36.3″W (47(5066)02 Taunton)		
Add (NOS)	Rock awash [K12] 55°31.9′N 132°23.3′W	27183 8Ed. 11/26/94 LAST NM 5/02 1/03 Delete Beacon "11" 21°39′58″N 79°50′57″W (10(74)02 Habana)		
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	27186 8Ed. 11/26/94 LAST NM 5/02 Delete Beacon "Muelle de Tunas" 21°37′50″N 79°33′00″W		
Add (NOS)	Rock awash [K12] 55°31′53″N 132°23′21″W	Beacon "11" 21°39′58″N 79°50′57″W		
★18423 33Ed. (NOS)	10/02 NEW EDITION 1/03	(Plan) Delete Beacon "Muelle de Tunas" 21°37′50.3″N 79°32′59.0″W (10(74)02 Habana)		
21008 62Ed. Change	12/5/98 LAST NM 50/02 1/03 Visibility (range) of light to 17M 31°17.1′N 113°34.7′W Visibility (range) of light to 10M 30°33.3′N 113°00.0′W	35011 2Ed. 10/4/97 LAST NM 48/02 1/03 Relocate Buoy "K7" from 60°30.0′N 5°00.0′W to 60°34.2′N 5°03.5′W (47(4970)02 Taunton)		
	Visibility (range) of light to 15M 30°16.2'N 112°51.2'W Visibility (range) of light to 9M 28°53.3'N 112°35.7'W Visibility (range) of light to 9M 28°48.0'N 111°59.0'W Visibility (range) of light to 9M 28°42.0'N 112°19.0'W	36040 16Ed. 5/3/97 LAST NM 30/02 1/03 Change Characteristic of buoy "2" to Fl(2) R 5s		
(Mex LL)	Visibility (range) of light to 9M Visibility (range) of light to 7M 28°23.0′N 111°42.5′W 28°23.0′N 112°20.0′W	52°28.6′N 6°12.6′W Add Light Fl(2) G 5s to buoy "1" 52°28.5′N 6°11.8′W		
41022	0/1/2/06 1 1 1/2/2 20/22	(12/02 Irish Lights)		
21033 46Ed. Add	8/17/96 LAST NM 32/02 1/03 "AREA TO BE AVOIDED (SEE NOTE)" [N1.2] bound by purple dashed line joining 4°04.8'N 81°43.3'W 4°04.8'N 81°28.1'W 3°52.2'N 81°28.1'W	37025 26Ed. 8/9/97 LAST NM 51/02 1/03 Add Wreck [K29] (PA) 45°09.9'N 2°27.1'W (8(17)00 Brest)		
	3°52.2′N 81°43.3′W	37032 2Ed. 9/12/98 LAST NM 12/02 Add Wreck [K29] (PA) 45°09.9'N 2°27.1'W (8(17)00 Brest)		

37080 3Ed. 12/28/96 LAST NM 51/02 1/03 Delete Depth 19.3 meters 48°52.3′N 2°02.7′W	37262 20Ed. 9/13/97 LAST NM 50/00 1/03 Add Legend "Beacons Destroyed" 49°26′34.0″N 0°07′26.0″E
Change Light to Iso G 4s 19m 9M 49°40.3′N 1°35.9′W	Buoy YB, pillar, double cone topmark
Add Depth 4.8 meters 48°41.9′N 1°58.4′W Depth 17.8 meters 48°52.3′N 2°02.9′W Beacon W 48°38.2′N 2°28.5′W	points downward [Q130.3] 49°26′32.4″N 0°06′31.8″E (6(16)00 Brest)
(8(13, 15)00, 14(12,13)02 Brest; Fr LL)	37264 3Ed. 9/13/97 LAST NM 30/02 1/03 Change Light to Iso G 4s 19m 9M 49°40′17.1″N 1°35′55.4″W (8(13)00 Brest; Fr LL)
37090 8Ed. 2/8/97 LAST NM 51/02 1/03 Change Light to Iso G 4s 19m 9M 49°40.3′N 1°35.9′W (8(13)00 Brest; Fr LL)	37265 3Ed. 3/22/97 LAST NM 24/02 1/03 Add Submarine pipeline (outfall) [L41.1] between
37095 3Ed. 10/26/96 LAST NM 32/02 1/03 Change Light to Iso G 4s 19m 9M 49°40.3′N 1°35.9′W (8(13)00 Brest; Fr LL)	49°20′07″N 0°26′14″W 49°21′15″N 0°26′36″W (6(17)00 Brest)
37139 8Ed. 10/8/94 LAST NM 23/02 Delete Buoy "Edinburgh" 51°31′28.7″N 1°21′45.2″E Buoy "N. Edinburgh No 1" 51°31′43.2″N 1°22′03.0″E	37281 15Ed. 1/25/97 LAST NM 30/02 1/03 Change Light to Iso G 4s 19m 9M 49°40′17.1″N 1°35′54.4″W (8(13)00 Brest; Fr LL)
Buoy "Patch" 51°32′22.2″N 1°21′06.6″E Buoy "SE Long Sand" 51°32′30.0″N 1°21′21.6″E Buoy "N. Edinburgh No 2" 51°32′34.0″N 1°21′21.6″E Buoy "N. Edinburgh No 3" 51°33′10.2″N 1°20′24.8″E Buoy "Hawksdale" 51°33′16.8″N 1°19′24.6″E Buoy "N. Edinburgh No 4" 51°33′16.8″N 1°19′24.6″E	37362 6Ed. 7/12/97 LAST NM 51/02 1/03 Change Characteristic of buoy "2" to QR 47°10′04″N 2°18′47″W (14(17)02 Brest) 1/03 47°10′04″N 2°18′47″W 47°09′56″N 2°18′23″W
Buoy "N. Edinburgh No 5" Buoy "N. Edinburgh No 6" Buoy "N. Edinburgh No 6" Buoy "N. Edinburgh No 7" Buoy "N. Edinburgh No 8" Buoy "N. Edinburgh No 8" Buoy "N. Edinburgh No 9" (See 28/98, 18/02-37139) 51°33′31.8″N 1°19′37.2″E 51°33′31.8″N 1°19′37.2″E 51°33′31.8″N 1°18′21.0″E 51°33′31.8″N 1°18′21.0″E 51°33′31.8″N 1°19′37.2″E 51°33′31.8″N 1°18′21.0″E	37420 (INT 1804) 1Ed. 2/27/88 LAST NM 43/02 1/03 Add Wreck [K29] (PA) 45°10′00″N 2°27′00″W (8(17)00 Brest)
(366 26/98, 18/02-3/139) (19/02 Trinity House)	37445 1Ed. 10/19/91 LAST NM 48/02 1/03
37141 29Ed. 10/21/95 LAST NM 51/02 1/03	Add Submarine pipeline (sewer) [L41.1] between 43°20′42″N 1°57′17″W 43°20′53″N 1°57′18″W
Delete Buoy "Edinburgh" 51°31′33″N 1°21′45″E Buoy "N. Edinburgh No 1" 51°31′45″N 1°21′57″E Buoy "Patch" 51°32′24″N 1°21′01″E Buoy "SE Long Sand" 51°32′32″N 1°21′16″E Buoy "N. Edinburgh No 2" 51°32′56″N 1°20′23″E	Buoy Y, can, "X" topmark, Fl Y 5s 43°20′55″N 1°57′19″W (35(637)01 Cadiz)
Buoy "N. Edinburgh No 3" 51°33′12″N 1°20′29″E Buoy "Hawksdale" 51°33′18″N 1°19′48″E Buoy "N. Edinburgh No 4" 51°33′31″N 1°19′19″E Buoy "N. Edinburgh No 5" 51°33′34″N 1°19′31″E	37446 2Ed. 2/16/91 LAST NM 23/01 1/03 Delete Legend "Works in progress (2000)" 43°19′12.7"N 1°54′51.0"W
Buoy "N. Edinburgh No 6" 51°33′25″N 1°18′15″E Buoy "N. Edinburgh No 7" 51°33′41″N 1°18′08″E Buoy "N. Edinburgh No 8" 51°33′15″N 1°16′32″E Buoy "N. Edinburgh No 9" 51°33′32″N 1°16′36″E (See 28/98-37141)	Add Land tint to area bound by shore and solid line joining 43°19′11.3″N 1°54′48.6″W 43°19′11.8″N 1°54′49.2″W 43°19′12.0″N 1°54′48.9″W (16(287), 36(645)01 Cadiz)
Add Buoy "Long Sand Outer" RW, spherical,	
L Fl 10s 51°35′52″N 1°26′35″E (19/02 Trinity House)	37463 6Ed. 2/24/96 LAST NM 44/01 1/03 Substitute Depth 13 meters Wk for 16 meters Wk 43°29'38"N 3°50'29"W
37147 15Ed. 2/15/97 LAST NM 40/02 1/03	Add Depth 24 meters 43°28′20″N 4°04′41″W
Add Buoy "Long Sand Outer" RW, spherical, L FI 10s 51°35′52″N 1°26′35″E Buoy "Long Sand Inner" RW, spherical, Mo(A) 15s 51°38′46″N 1°26′00″E	(Plan) Substitute Depth 13 meters Wk for 16 meters Wk 43°29'37.6"N 3°50'29.0"W
Drying height 0.3 meter Obstn 51°41′55″N 1°24′47″E (19/02 Trinity House; 47(4967)02 Taunton)	(38(676), 39(695)01 Cadiz)
37161 14Ed. 3/15/97 LAST NM 43/02 1/03	43345 4Ed. 8/7/93 LAST NM 18/99 1/03 Delete Light 58°05′34″N 6°35′12″E
Relocate Buoy "N Scroby" from 52°41′28″N 1°46′23″E to 52°41′35″N 1°46′24″E (See 43/02-37161) (24/02 Trinity House)	Change Characteristic of light to Iso WRG 6s 58°05′40″N 6°35′02″E (20(842)02 Stavanger; Nor LL)
(24/02 Hillity House)	44001 2Ed. 10/19/96 LAST NM 49/02 1/03
37258 4Ed. 9/6/97 LAST NM 15/02 1/03 Add Legend "Beacons Destroyed" 49°26′29.0″N 0°07′36.0″E	44001 2Ed. 10/19/96 LAST NM 49/02 1/03 Delete Buoy 59°11.3′N 19°05.1′E (13-14(172)02 Norrkoping)
Buoy YB, pillar, double cone topmark points downward [Q130.3] 49°26′32.4″N 0°06′31.8″E (6(16)00 Brest)	44041 7Ed. 4/3/93 LAST NM 48/02 1/03 Change Light to L Fl WRG 8s 10-6M 57°33′01″N 11°48′07″E Note: Sectors remain unchanged
37261 10Ed. 6/21/97 LAST NM 28/02 1/03 Add Legend "Beacons Destroyed" 49°26′36.0″N 0°07′36.0″E	(33(762)00 Norrkoping) 44043 8Ed. 11/30/96 LAST NM 44/02 1/03
Buoy YB, pillar, double cone topmark points downward [Q130.3] 49°26′32.4″N 0°06′31.8″E (6(16)00 Brest)	Change Light to L Fl WRG 8s 15m 10-6M 57°33′01″N 11°48′07″E Note: Sectors remain unchanged (33(762)00 Norrkoping)

44051 1Ed. 7/25/92 LAST NM 50/02 1/03 Delete Buoy 55°37′25.8″N 12°59′56.4″E Buoy 55°37′25.2″N 13°00′11.4″E Buoy 55°37′27.0″N 13°00′41.4″E Buoy 55°37′28.8″N 13°00′40.8″E	44192 1Ed. 12/18/93 LAST NM 48/02 Add Submarine cable [L30.1] joining 59°30′24″N 17°48′05″E 59°29′08″N 17°47′36″E 59°28′25″N 17°47′27″E (47(1086)00 Norrkoping)
Relocate Buoy "8" from 55°37′28.8"N 12°59′42.6"E to 55°37′27.2"N 12°59′42.7"E Buoy "13" from 55°37′27.0"N 12°59′22.8"E to 55°37′27.1"N 12°59′28.9"E	44193 1Ed. 7/16/94 LAST NM 26/02 Substitute Depth 0.5 meter for 1.2 meters (40(1081)99 Norrkoping) 59°34′00″N 16°49′21″E
Add Buoy G, spar 55°37′28.5″N 13°00′31.8″E (23(569)00 Norrkoping)	51061 14Ed. 9/4/93 LAST NM 52/99 Add Note from Subsection I-3 39°10.0′N 27°10.0′W
44140 8Ed. 7/20/96 LAST NM 50/02 1/03 Add Buoy "Garprevet" YB, pillar, Q(6) + L Fl 15s 56°22.8'N 16°07.5'E (33(755)00 Norrkoping)	Legend "Volcanic Activity (see Note)" 38°49.5'N 27°27.9'W (20(388)01 Lisboa)
44160 7Ed. 4/5/97 LAST NM 46/02 1/03 Delete Light 57°15.0′N 16°48.0′E (26(361)02 Norrkoping)	51064 2Ed. 4/13/96 LAST NM 52/02 1/03 Add Position circle "Wtr Tr" [E21] 38°42′22″N 27°03′13″W (Plan B) Add Position circle "Wtr Tr" [E21] 38°42′21.8″N 27°03′12.6″W (1(104)02 Lisboa)
44161 2Ed. 6/8/96 LAST NM 50/02 1/03 (Panel A) Delete Submarine cable in vicinity Submarine cable in vicinity (47(1080)00 Norrkoping) 1/03 57°43′26″N 16°40′51″E 57°43′36″N 16°40′00″E	51100 7Ed. 10/22/94 LAST NM 44/01 1/03 Delete Light 41°22.5′N 8°45.3′W (25(433)01 Lisboa)
44162 1Ed. 3/25/89 LAST NM 50/02 1/03 Relocate Buoy "STORA JUTEN NW" from 58°38′05.0″N 16°19′28.0″E to 58°38′03.6″N 16°19′16.8″E and change shape to can (13-14(157)02 Norrkoping) 44164 1Ed. 12/2/89 LAST NM 48/02 1/03	51144 3Ed. 12/15/01 LAST NM 52/02 1/03 Add Light FI G 3s 6m 4M 38°41′44.1″N 9°14′00.2″W Light FI(2) R 5s 6m 7M 38°41′38.0″N 9°14′02.1″W Depth 8.9 meters 38°41′26.8″N 9°13′43.9″W and extend depth contour (10-meter) to enclose Depth 4.3 meters 38°41′32.8″N 9°13′43.1″W and extend depth contour (5-meter) to enclose
Delete Position circle "Stack R Lt" 58°40′12.5″N 17°07′56.0″E (43(983)00 Norrkoping) 44165 1Ed. 10/6/90 LAST NM 46/02 Delete Position circle "Stack" 58°40′12″N 17°07′56″E (43(983)00 Norrkoping) 44180 6Ed. 7/6/91 LAST NM 46/02 1/03	Land tint to area bound by shore and solid line joining 38°41′51.5″N 9°14′21.9″W 38°41′51.2″N 9°14′15.3″W 38°41′37.8″N 9°14′03.0″W 38°41′38.1″N 9°14′01.6″W 38°41′42.9″N 9°14′05.8″W 38°41′45.3″N 9°14′01.1″W 38°41′44.1″N 9°14′00.2″W and delete land tint seaward of above line
Delete Buoy (13-14(172)02 Norrkoping) 59°11.5′N 19°05.1′E 44182 4Ed. 5/28/94 LAST NM 49/02 Delete Buoy (mooring) 59°19′16.2″N 18°06′19.0″E Buoy (mooring) 59°19′13.7″N 18°06′21.6″E Buoy (mooring) 80 in vicinity 59°19′13.0″N 18°06′30.0″E Add Buoy BY, spar 59°19′17.7″N 18°06′29.6″E Buoy YB, spar 59°19′14.5″N 18°06′28.0″E	(21(394)01 Lisboa) 51150 (INT 1811) 1Ed. 3/24/90 LAST NM 51/02 1/03 Add "Fish haven" area with blue tint [K46.1] bound by dotted line (limiting danger line) joining 37°02.6'N 8°09.6'W 37°02.0'N 8°07.1'W 37°01.7'N 8°07.0'W 37°01.2'N 8°07.4'W 37°01.2'N 8°09.9'W 37°02.4'N 8°09.8'W
Buoy YBY, spar 59°19′16.0″N 18°06′26.8″E Buoy BYB, spar 59°19′16.0″N 18°06′30.4″E 59°19′16.0″N 18°06′30.4″E 59°19′16.0″N 18°06′30.4″E 59°19′16.0″N 18°06′32.4″E 59°19′16.0″N 18°06′32.4″E 59°19′16.0″N 18°06′32.4″E 59°19′16.0″N 18°06′32.4″E 59°19′16.0″N 18°06′32.4″E 59°19′16.0″N 18°06′26.8″E 59°19′16.0″N 18°06′20.4″E 59°19′16.0″N 18°106′20.4″E 59°19′16.0″N 18°106′20.4″E 59°19′16.0″N 18°106′20.4″E 59°19′16.0″N 18°106′20.4″E 59°19′16.0″N 18°106′20.4″E 59°19′16.	(2(113)02 Lisboa) 51155
(13-14(160, 171)02 Norrkoping) 44185 7Ed. 3/23/96 LAST NM 49/02 Delete Buoy 59°11′17.8″N 19°05′07.0″E (13-14(172)02 Norrkoping)	37°02′18″N 8°09′46″W Danger circle [K40] "Obstn (Marine farm)" 37°01′11″N 8°53′11″W (23(412)01, 2(113)02 Lisboa)
44186 2Ed. 6/15/96 LAST NM 48/02 1/03 Add Dangerous submerged rock [K13] 59°25′55″N 18°28′34″E Dangerous submerged rock [K13] 59°25′57″N 18°28′24″E (13-14(160)02 Norrkoping)	

51160 20Ed.	. 9/22/90 LAST NM 51/02 "Fish haven" area with blue tint [K4	1/03 46.1] bound	Danger circle [K40] "Obstn (Marine farm) (Buoyed)" 40°03′55″N 0°09′55″E
	by dotted line (limiting danger line)	joining 37°02.6'N 8°09.6'W 37°02.0'N 8°07.1'W 37°01.7'N 8°07.0'W	(35(643), 39(700, 701)01 Cadiz; Spn CH 48B) 52121 8Ed. 8/12/95 LAST NM 46/02 1/03
		37°01.2′N 8°07.4′W 37°01.8′N 8°09.9′W 37°02.4′N 8°09.8′W	Add Danger circle "Obstn" [K40] 40°43′10″N 0°53′32″E (30(579)01 Cadiz)
(2(113)02	and delete "Tunny nets" symbol wit area Lisboa)	hin above	52172 2Ed. 8/12/95 LAST NM 40/02 Add Light flare symbol to buoy 35°44′53″N 11°00′07″E (8(29)00 Brest)
51342 3Ed. Add	. 4/25/98 LAST NM 29/98 Danger circle "Obstn" [K40]	1/03 30°08′19″N 15°52′30″W	52180 14Ed. 7/31/99 LAST NM 51/02 1/03 Add Wreck [K29] 38°07.5′N 13°23.6′E (12(9)99 Genova)
Add (1(103)02		'08'19.3"N 15°52'30.0"W	520/2 12FJ 1/22/04 LACT NW 21/00 1/02
52039 3Ed. Delete	. 7/1/95 LAST NM 50/02 "Tunny Nets" area in vicinity	1/03 36°09′10″N 5°56′00″W	53062 13Ed. 1/22/94 LAST NM 21/00 1/03 Change Visibility (range) of light to 18M 43°20′50.8″N 5°19′06.0″E (8(23)00 Brest; Fr LL)
Add	"Tunny Nets" area [K45] bound by joining	dashed line 36°10'45"N 5°55'24"W 36°08'51"N 5°57'05"W	53180 10Ed. 1/21/95 LAST NM 51/02 1/03 Add Wreck [K29] 38°07.5′N 13°23.6′E
(41(736)01	l Cadiz)	36°08′05″N 5°55′05″W 36°08′56″N 5°55′24″W	Danger circle [K40] "Obstn (Marine farm)" marked by buoy Y, pillar, "X" topmark, FI(2) Y 4s 40°31.9'N 14°51.3'E (12(5, 9)99 Genova)
52083 2Ed. Change	. 11/9/96 LAST NM 51/02 Legend to "Fish haven" Legend to "Fish haven"	1/03 40°07′30″N 0°14′00″E 40°09′30″N 0°12′00″E	53181 4Ed. 11/4/95 LAST NM 34/02 1/03 (Plan C)
Add	Fish haven area with blue tint [K46. by existing fish havens and dotted lindanger line) joining		Add Depth 17.9 meters Obstn [K41] 38°39′44″N 15°05′20″E (19(3)99 Genova) 53184 5Ed. 3/23/96 LAST NM 35/02 1/03 (Plan C)
	Fish haven area with blue tint [K46.	40°08′14″N 0°12′02″E 40°07′55″N 0°12′38″E 40°08′32″N 0°13′08″E	Add Anchor berth "A1" [N11.1] 37°30′02.4″N 15°06′33.5″E Anchor berth "A2" [N11.1] 37°29′45.4″N 15°06′44.3″E Anchor berth "A3" [N11.1] 37°29′33.1″N 15°06′35.4″E Anchor berth "A4" [N11.1] 37°29′20.4″N 15°06′35.4″E Stranded wreck [K24] 37°29′26.4″N 15°05′34.8″E
	by existing fish haven and dotted lir danger line) joining		Depth 6 meters Wk [K26] 37°29′40.8″N 15°05′55.2″E Depth 3 meters Wk [K26] 37°30′03.0″N 15°05′51.6″E Pilot station symbol [T1.1] (See 27/97-53184) (19(9)99, 25(9)00 Genova)
(30(579), 3	Danger circle "Obstn" [K40] 39(701)01 Cadiz; Spn CH 48B)	40°43′10″N 0°53′32″E	53242 12Ed. 5/18/96 LAST NM 52/02 1/03 Add Wreck [K29] 38°07′30.0″N 13°23′36.0″E (12(9)99 Genova)
52086 2Ed. Change	. 8/5/95 LAST NM 51/02 Legend to "Fish haven"	1/03 40°07′30″N 0°14′00″E	53244 2Ed. 7/27/96 LAST NM 2/02 1/03 Add Wreck [K29] 38°07′30.0″N 13°23′36.0″E
Add	Fish haven area with blue tint [K46. by existing obstruction area and dot (limiting danger line) joining	ted line 40°07′55″N 0°12′38″E	(12(9)99 Genova)
		40°08′20″N 0°12′57″E 40°08′20″N 0°12′05″E 40°08′14″N 0°12′02″E	53266 4Ed. 4/14/90 LAST NM 6/00 1/03 Add Beacon RW, ball topmark, Iso 4s [Q130.5] 39°52.56′N 8°29.42′E Buoy R, pillar, can topmark, FI R 3s [Q130.1]
	Fish haven area with blue tint [K46. by existing obstruction area and dot (limiting danger line) joining		Buoy R, pillar, can topillark, F1 R 38 [Q130.1] 39°52.86′N 8°29.99′E Buoy G, can, cone topmark, F1 G 38 [Q130.1] 39°52.77′N 8°30.06′E Buoy R, pillar, can topmark, F1 R 38 [Q130.1] 39°52.97′N 8°30.54′E Buoy G, can, cone topmark, F1 G 38 [Q130.1]
	Fish haven area with blue tint [K46. by dotted line (limiting danger line)	40°06′44″N 0°11′10″E 1] bound	39°52.82′N 8°30.56′E Buoy R, pillar, can topmark, Fl R 3s [Q130.1] 39°52.77′N 8°31.13′E Buoy G, can, cone topmark, Fl G 3s [Q130.1] 39°52.72′N 8°31.02′E Buoy R, pillar, can topmark, Fl R 3s [Q130.1]
		40°05′41″N 0°10′38″E 40°05′47″N 0°10′38″E	39°52.43′N 8°31.68′E (19(2)99 Genova)
	Fish haven area with blue tint [K46. by dotted line (limiting danger line)		53287 (INT 3350) 6Ed. 9/30/95 LAST NM 42/02 1/03 Add Light Fl R 4s to buoy 41°15′21″N 9°12′08″E (9(5)00 Genova)

	2/1/97 LAST NM 19/97 Purple composite line between	41°19′57.8″N 16°17 41°19′59.5″N 16°17			Dashed line (coastline) [C2] between 44°43′21.0″N 37°48′55.4″E 44°43′19.1″N 37°49′03.7″E
Add I	Land tint with legend "Under rec	lamation" area		(37(5713)0)2 St. Petersburg)
t	bound by shore and solid line be	tween 41°19′42.0″N 16°17 41°19′50.1″N 16°17			9/28/96 LAST NM 30/01 1/03 Depth 0.9 meter Wk [K26] for stranded wreck 45°01.7'N 35°23.9'E
	"PROHIBITED AREA" [N2.2] band purple composite line joining			(37(5710)0)2 St. Petersburg)
		41°19′39.8″N 16°17 41°19′39.2″N 16°16 41°19′42.8″N 16°16 41°19′50.1″N 16°17 41°20′01.6″N 16°17 41°19′50.5″N 16°17 41°19′50.2″N 16°17	758.6″E 757.4″E 712.1″E 724.5″E 729.3″E	Substitute	10/12/96 LAST NM 33/02 1/03 Depth 0.9 meter Wk [K26] for stranded wreck 45°01.7′N 35°23.9′E
(12(12)99 G	Genova)	41 19 30.2 N 10 17	20.2 E		8/1/92 LAST NM 1/02 1/03 Racon [S3.1] at light 31°10.0′N 29°48.5′E
54288 5Ed.	5/11/96 LAST NM 9/02		1/03	(BA LL)	[50.1] w ngm
	(Plan A) Visibility (range) of light to 10M	38°20′00.0″N 22°22	2'40.0"E		. 3/2/96 LAST NM 50/02 Racon [S3.1] at light 31°10.0′N 29°48.5′E
I	Light to Fl RG 12m 3M	38°22′44.0″N 22°23	′13.0″E	(BA LL)	
Change I I ((Plan B) Light to Fl G 1½s 3m 3M Light to Fl G 1½s 7m 3M (See 51/98-54288) 9)99 Athens)	38°15′15.7″N 21°43 38°14′51.9″N 21°43			6/22/96 LAST NM 33/02 Racon [S3.1] at light 1/03/02/07/N 29°48′32″E
(12(300, 30))))) I Kilichs)				5/29/99 LAST NM 4/01 1/03 Beacon to Fl 4s 21m 16M Racon
Change I	11/23/85 LAST NM 19/02 Light to Fl G 2s 43ft 3M Light to Fl(3) 15s 23ft 7M	38°23.5′N 21 38°22.2′N 21	°52.3′E	(BA LL)	31°09′59.6″N 29°48′31.6″E
	Visibility (range) of light to 10M 8)99 Athens; BA LL)	38°19.8′N 22	322.5 E		5/15/99 LAST NM 30/02 1/03 Beacon to Fl 4s 21m 16M Racon 31°09′59.6″N 29°48′31.0″E
Change I	3/9/96 LAST NM 19/02 Light to Fl R 4s 12m 6M Height of light to 10m	35°22′15″N 24°2 35°22′24″N 24°2		(BA LL)	
, , ,	hens; BA LL) 10/5/91 LAST NM 48/02		1/03		1/4/86 LAST NM 1/02 1/03 (Panel A) Racon [S3.1] at light 31°10.0′N 29°48.5′E
	Light Fl G 3s 10m 12M hens; BA LL)	35°22.4′N 24	°28.9′E	<0004 IT1	(200 1107 1107 1100
	8/16/86 LAST NM 20/02 Visibility (range) of light to 12M	35°22.4′N 24	1/03 °29.0′E	Add	6/3/89 LAST NM 36/02 1/03 (Plan) Platform with light flare symbol [L10] and Racon 28°13.2′N 33°20.5′E 1/2 Taunton; BA LL)
Add I	8/10/96 LAST NM 52/02 (Plan A) Light Fl G 3s 3M Light Fl R 3s 3M	38°52′05″N 24°3 38°52′01″N 24°3		Change	4/13/96 LAST NM 41/02 1/03 Platform to "ASMA-8" 2 Mo(U) 15s Racon Horn 28°13′11″N 33°20′29″E (See 22/02-62191)
2	Solid line (breakwater) between	38°52′06″N 24°3 38°52′05″N 24°3		Add	Submarine pipeline [L40.1] between 28°08′19″N 33°16′35″E 28°13′11″N 33°20′29″E
	Solid line (breakwater) between Athens; Gr CH 3315)	38°51′57″N 24°3 38°52′01″N 24°3		Add	(Plan B) Submarine pipeline [L40.1] between 28°08′19.2″N 33°16′35.4″E 28°09′45.0″N 33°17′43.8″E
Add I	4/6/96 LAST NM 48/02 Buoy (mooring) [Q40] 2 St. Petersburg)	44°37′22.4″N 33°31	1/03 ′47.8″E	(46(4918)0)2 Taunton; BA LL)
55128 2Ed.	3/18/00 LAST NM 38/02 (Plan) Dashed line between	11012'72 7"NI 27010	1/03	Change	. 3/9/96 LAST NM 41/02 1/03 Platform to "ASMA-8" 2 Mo(U) 15s Racon Horn 28°13′11″N 33°20′29″E (See 22/02-62195)
	(See 33/02-55128)	44°43′23.2″N 37°48 44°43′17.1″N 37°48		Add	Submarine pipeline [L40.1] between 28°08′19″N 33°16′35″E
	Light from 44°43′23.2″N 37°48	'53.5"E to 44°43'21.3"N 37°48	755 4″E	(46(4918)0	28°13′11″N 33°20′29″E 28°13′11″N 33°20′29″E
Change I	Legend to "Works in Progress 20				11/14/98 LAST NM 45/02 1/03 CAUTIONS note from Subsection I-3 for same
Add S	Solid line (wharf) [F13] between	44°43′23.1″N 37°48 44°43′21.0″N 37°48			29°19′48.0″N 48°03′54.0″E (continued on next page)
			T_2 S)	

62433 (Continued)	1	73552 4Ed. 4/3/99	LAST NM 45/02	1/03
Change Legend to "Least depth 7m (20)	29°24′14.0″N 47°58′16.0″E	Delete Superbu	oy and legend "Vessel (A	
Legend to "Least depth 7m (20)	02)" 29°22′39.0″N 47°57′05.0″E	(See 45/0) (20(636)02 Wollong	(02-73552) gong)	
Legend to "Least depth 7m (20)				1/02
Legend to "CAUTION NO 2" Legend to "CAUTION NO 2"	29°28′30.0″N 47°58′00.0″E 29°26′42.0″N 48°08′36.0″E		LAST NM 45/02 oy and legend "Vessel (A	1/03 Apr-Dec)" 8°28.8'S 143°53.4'E
Legend to "CAUTION NO 2" Legend to "CAUTION NO 2"	29°23′54.0″N 47°55′00.0″E 29°21′33.0″N 48°02′30.0″E	Superbu	oy and legend "Vessel (A	
(See 15/02-62433) (NTM0044/2002; BA CH 1214)	27 21 33.0 TV 48 02 30.0 L	(See 45/0	02-73570)	
62439 4Ed. 1/16/93 LAST NM 20/95	1/03	Add Superbuc (20(636)02 Wollong	oy with legend "Vessel" gong)	8°40.3′S 144°00.9′E
(Panel B)				
Delete Land tint area and legend "Floa vicinity	ting Dock" in 30°32′51.8″N 47°49′07.8″E		LAST NM 46/02 d wreck [K24] gong)	1/03 9°01.0′S 149°18.4′E
Add Anchorage symbol (large vesse legend "Jubaylah Anchorage"			LAST NM 46/02	1/03
Legend "Numerous exposed wi	recks" between 30°31'48.0"N 47°50'29.5"E 30°31'37.0"N 47°50'36.0"E		berth "A" [N11.1]	24°45.2′S 152°30.3′E
Legend "Numerous exposed wi	recks" between 30°31′09.6″N 47°50′53.5″E 30°30′59.5″N 47°51′01.0″E		LAST NM 48/02 age symbol (large vessels) gong)	1/03) 24°44.90′S 152°26.76′E
Note from Subsection I-3	30°28′30.0″N 47°50′36.0″E	-1100	V 1 CT 277 4 4 5 102	1100
(BA CH 3846)			LAST NM 46/02 berth "A" [N11.1]	1/03 24°45′13″S 152°30′19″E
71009 3Ed. 8/10/85 LAST NM 48/02	1/03	(20(630)02 Wollong	gong)	
Change Visibility (range) of light to 101 (21(154)02 Jakarta)			LAST NM 46/02 (PA) from wreck	1/03 23°27.9'S 151°14.8'E
71012 3Ed. 5/19/84 LAST NM 46/02 Change Visibility (range) of light to 10! (21(154)02 Jakarta)	M 0°58.0′S 100°21.0′E	_	berth "A" [N11.1]	24°45.2′S 152°30.3′E
71091 4Ed. 10/18/97 LAST NM 26/99	1/03	74202 3Ed. 10/2/93 Delete Wreck (1	LAST NM 24/02	1/03 23°27.90'S 151°14.73'E
Add Buoy R, pillar, can topmark, Fl	R 5s [Q130.1]	`	,	
(21(153)02 Jakarta)	5°35′08″N 95°17′57″E	Add Wreck [1 (20(631)02 Wollong	gong)	23°27.88′S 151°14.84′E
71140 6Ed. 4/5/86 LAST NM 46/02	1/03	74204 5Ed. 8/23/97	LAST NM 37/02	1/03
Change Visibility (range) of light to 101 (21(154)02 Jakarta)		Delete Wreck (I	PA)	23°27′52″S 151°14′38″E 23°27′53″S 151°14′50″E
		(20(631)02 Wollong		25 27 55 S 151 14 50 E
71248 2Ed. 7/20/02 LAST NM N51/02 Relocate Beacon "Frontier" from	N1/03			
1°18′53.0″N 104°03′39.0″E to	1°18′53.0″N 104°03′33.2″E		LAST NM 45/02 oy and legend "Vessel (A	1/03
Add "MAN-OF-WAR ANCHORAC by purple dashed line joining	GE" area bound 1°18′53.0″N 104°03′33.2″E 1°18′52.6″N 104°04′10.6″E	•	edes 45/02-74285)	9°12.0′S 143°20.0′E
	1°18′23.4″N 104°04′37.2″E 1°18′22.2″N 104°03′33.2″E	(20(030)02 Wollong	,011g)	
(18/02 PMC Singapore)	1 10 22.2 10 101 03 33.2 12		LAST NM 51/02 oy and legend "Vessel (A	
71251 11Ed. 12/16/00 LAST NM 40/02 (Panel A)	1/03	(See 45/0) (20(636)02 Wollong	02-74290) gong)	9°12.0′S 143°20.0′E
Add "MAN-OF-WAR ANCHORAC by dashed line joining	1°18′45.0″N 104°03′33.2″E 1°18′53.0″N 104°03′33.2″E		LAST NM 48/02	1/03
	1°18′52.6″N 104°04′10.6″E 1°18′45.0″N 104°04′18.0″E	Add Depth 0.	.9 meter "Rep (2002)" [I3	3.2] 14°33.5′S 125°15.5′E
Note: Area extends beyond cha (18/02 PMC Singapore)		Rock wh "Rep (20 (20(641)02 Wollong		[K11] 14°37.3′S 125°13.2′E
71259 2Ed. 2/27/99 LAST NM 33/02	1/03			
Delete "MAN-OF-WAR ANCHORAC vicinity	E" area in 1°16′48″N 103°53′42″E		LAST NM 52/02 R1" from 38°16′16″S 144	1/03 4°58′31″E to
Add "MAN-OF-WAR ANCHORAC by purple dashed line joining	GE" area bound 1°18'53"N 104°03'33"E	(20(645)02 Wollong	gong)	38°16′23″S 144°58′27″E
) K - I	1°18′53″N 104°04′11″E 1°18′23″N 104°04′37″E	75173 9Ed. 8/8/98	LAST NM 36/02	1/03
(18/02 PMC Singapore)	1°18′22″N 104°03′33″E		R1" from 38°16′15.6″S 14	
(omgapoto)		(20(645)02 Wollong		2 2 1 1 3 2 1 1 3 2 2 3 3 E

75193 6Ed. 11/25/95 LAST NM 49/02 Add Buoy G, conical, QG	1/03 42°49′36.7″S 147°19′07.6″E	Light Fl(2) 12s 27m 6M Racon 33°49.2′N 120°28.9′E (Cna CH 12700)
Range line extending in 127°5 dashed for 1000 meters Legend "307°54" along above	42°49′18.7″S 147°18′30.6″E	94290 2Ed. 9/2/95 LAST NM 32/01 1/03 Add Anchorage area "No 1" [N12.2] bound by dashed line joining 36°38.2'N 121°10.5'E 36°39.5'N 121°10.5'E
(Continuation)	42°49′29.5″S 147°19′50.8″E	36°39.5′N 121°12.2′E 36°38.2′N 121°12.2′E
Add Range light, rear F Bu Range light, front F Bu Range line extending in 127°5	42°49′10.6″S 147°18′16.3″E 42°49′11.3″S 147°18′17.5″E 4′ direction from	Anchorage area "No 2" [N12.2] bound by dashed line joining 36°35.0'N 121°15.0'E 36°30.2'N 121°15.0'E 36°30.2'N 121°17.0'E
above rear light dashed for 1420 meters Legend "307°54" along above	lin-	36°35.0′N 121°17.0′E (24(377, 378)01 Tianjin)
Buoy G, conical, QG (20(644)02 Wollongong)	42°49′36.7″S 147°18′51.0″E 42°49′36.7″S 147°19′07.6″E	95060 13Ed. 8/5/95 LAST NM 52/02 1/03 Add Beacon BRB, double ball topmark 37°06.3′N 126°01.4′E (51(592)99 Inchon)
76080 8Ed. 2/22/97 LAST NM 3/02 Change Characteristic of light to F Bu (23(143)02 Wellington)	1/03 41°16′28″S 173°15′28″E	95066 11Ed. 11/21/98 LAST NM 50/02 1/03 Substitute Depth 5.6 meters for 9.3 meters 36°55′47″N 126°11′03″E (46(495)99 Inchon)
76083 3Ed. 7/25/98 LAST NM 42/01 Change Characteristic of light to F Bu (Plan)	1/03 41°16′27.6″S 173°15′28.2″E	95067 13Ed. 8/29/98 LAST NM 46/02 Delete Buoy "A" 37°29′52.0″N 126°35′55.0″E Buoy "B" 37°29′43.0″N 126°35′52.0″E Buoy "C" 37°29′41.0″N 126°35′34.0″E Buoy "D" 37°29′37.0″N 126°35′30.0″E
	41°16′27.6″S 173°15′28.2″E	Buoy "E" 37°29′48.0″N 126°36′12.0″E Add Buoy "C" Y, pillar, "X" topmark, Fl(4) Y 8s
83397 6Ed. 3/28/92 LAST NM 18/02 Substitute Depth 9.2 meters for 10 meter	1/03	(ROK CH 309; 52(615)99 Inchon) 37°29′51.0″N 126°36′17.0″E
Add Depth 7.1 meters	16°29′36.6″S 151°46′27.0″W 16°29′29.9″S 151°46′33.8″W	95080 13Ed. 6/24/95 LAST NM 52/02 1/03 Change Height of beacon to 17m 36°19′02″N 126°28′32″E
(Plan) Delete Depth 10 meters, blue tint and depth contour centered		Add Dangerous wreck [K28] 36°31′35″N 126°16′41″E (51(590)99, 47(636)02 Inchon)
Add Depth 9.2 meters, blue tint and depth contour (10-meter) cent Depth 8.2 meters, blue tint and	ered 16°29'36.6"S 151°46'27.0"W	95082 9Ed. 5/28/94 LAST NM 46/02 1/03 Relocate Buoy "11" from 35°59′05"N 126°37′18"E to 35°59′05"N 126°37′25"E
depth contour (10-meter) cent Depth 8 meters, blue tint and depth contour (10-meter) cent	ered 16°29'30.5"S 151°46'35.1"W enclosing ered	Add Buoy "C" Y, pillar, "X" topmark, Fl(4) Y 8s 35°59′11″N 126°39′47″E (45(620), 47(637)02 Inchon)
Depth 7.1 meters, blue tint and depth contour (10-meter) centre (14(41)01 Brest)		95083 8Ed. 5/28/94 LAST NM 33/02 1/03 Relocate Buoy "11" from 35°59′05.0"N 126°37′18.0"E to 35°59′05.0"N 126°37′25.0"E (47(637)02 Inchon)
93018 8Ed. 3/6/99 LAST NM 27/02 Add Light Fl R 3s 12m 5M Light Fl 4s 9m 8M (29, 31/02 Malaysia)	5°12.6′N 103°12.9′E 5°54.6′N 102°42.6′E	95085 4Ed. 6/11/94 LAST NM 52/02 1/03 Substitute Depth 14.9 meters M for 5.8 meters Rk 34°45′43.8″N 126°19′38.6″E (See 52/02-95085)
93110 2Ed. 8/18/01 LAST NM 41/02 Add Light Fl R 3s 12m 5M (31/02 Malaysia)	1/03 5°12.6′N 103°12.9′E	Add Depth 12.9 meters 34°45′45.6″N 126°19′37.5″E (45(619)02 Inchon)
93160 4Ed. 11/24/01 LAST NM 34/02 Add Light Fl 4s 9m 8M (29/02 Malaysia)	1/03 5°54′36″N 102°42′35″E	95086 5Ed. 6/18/94 LAST NM 52/02 1/03 Substitute Depth 14.9 meters M for 5.8 meters Rk 34°45′43.3″N 126°19′39.5″E (See 52/02-95086)
94028 7Ed. 9/16/95 LAST NM 52/02 Add Light FI(2) 5s 24m 8M Racon Dangerous wreck [K28] (51(576)99, 47(636)02 Inchon)	1/03 34°41.0′N 128°46.5′E 36°31.6′N 126°16.7′E	Add Depth 12.9 meters 34°45′45.6″N 126°19′37.5″E (45(619)02 Inchon) 95087 3Ed. 4/30/94 LAST NM 48/02 1/03 Add Buoy "C" Y, pillar, "X" topmark, Fl(4) Y 8s 35°59′10.8″N 126°39′46.7″E
94260 5Ed. 8/26/95 LAST NM 49/02 Add Light Fl(2) 6s 9m 7M Light Fl 12s 10m 10M Light Fl(3) 12s 10m 10M Light Fl 12s 27m 12M	1/03 32°30.3′N 121°07.0′E 33°03.9′N 120°47.5′E 33°28.9′N 120°40.0′E 33°39.0′N 120°34.0′E	(45(620)02 Inchon) 35°59 10.8 N 126°39 46.7 E

95100 12Ed. 3/2/96 LAST NM 52/02 1/03 Add Solid line (breakwater) [F4.1] between 34°32′24″N 126°59′07″E	Buoy "H" 35°05′39.8″N 129°05′40.6″E (45(614)02 Inchon)
34°31′45″N 126°58′54″E Solid line (breakwater) [F4.1] between 34°31′35″N 126°58′51″E 34°30′48″N 126°58′37″E	95160 13Ed. 8/19/95 LAST NM 52/02 1/03 Change Visibility (range) of light to 3M 34°02.4′N 130°53.6′E (44(1501)02 Tokyo)
(51(589)99 Inchon)	05161 16E1 0/0/01 1 ACT ND4 50/02
95101 8Ed. 7/8/95 LAST NM 50/02 1/03 Delete Beacon 34°10′24″N 126°35′25″E Beacon 34°10′54″N 126°32′28″E	95161 16Ed. 9/8/01 LAST NM 50/02 1/03 Add Danger circle "Obstn" [K40] 35°27′39.0″N 129°24′44.0″E (51(564 Part II)99 Inchon)
(52(612)99 Inchon)	95163 2Ed. 6/4/94 LAST NM 27/02 1/03 Add "Marine farm" area bound by dashed line
95102 8Ed. 8/12/95 LAST NM 52/02 1/03 Add Solid line (breakwater) [F4.1] between 34°32′24″N 126°59′07″E 34°31′45″N 126°58′54″E	joining 36°08'35.5"N 129°24'39.8"E 36°08'36.7"N 129°24'43.5"E 36°08'30.7"N 129°24'46.6"E 36°08'29.6"N 129°24'42.8"E (47(292)02 Inchon)
	(47(252)02 Inchon)
Solid line (breakwater) [F4.1] between 34°31′35″N 126°58′51″E 34°30′48″N 126°58′37″E (51(589)99 Inchon)	95164 4Ed. 4/9/94 LAST NM 48/02 1/03 Dashed-line circle "Marine farm" 35°51′26.8″N 129°31′43.1″E
	"Marine farm" area bound by dashed line
95120 7Ed. 12/2/95 LAST NM 52/02 1/03 Add Submarine cable [L30.1] joining 32°45′12″N 128°13′24″E 32°41′54″N 128°13′30″E 32°35′30″N 128°14′00″E 32°34′18″N 128°14′42″E	joining 35°51′32.9″N 129°32′27.9″E 35°51′31.0″N 129°32′27.9″E 35°51′23.7″N 129°32′27.9″E 35°51′25.7″N 129°32′23.3″E
32°23′24″N 128°25′00″E 32°21′12″N 128°26′36″E 32°12′48″N 128°35′48″E 32°11′36″N 128°37′54″E 32°05′18″N 128°43′36″E	"Marine farm" area bound by dashed line joining 35°53'39.1"N 129°32'05.2"E 35°53'40.8"N 129°32'12.9"E 35°53'36.2"N 129°32'14.5"E 35°53'34.5"N 129°32'06.8"E
32°00′42″N 128°45′36″E 31°58′00″N 128°44′18″E	Position circle "Tr" 35°52′08.0"N 129°31′58.0"E
31°55′12″N 128°45′12″E (43(1468)02 Tokyo)	Double dashed line with land tint (breakwater under construction) between 35°48′19.3″N 129°30′30.1″E 35°48′16.7″N 129°30′27.9″E
95140 15Ed. 10/7/95 LAST NM 52/02 Add Racon [S3.1] at light 34°41′00″N 128°46′30″E (51(576)99 Inchon)	Double dashed line with land tint (breakwater under construction) between 35°48′13.3″N 129°30′24.0″E 35°48′13.7″N 129°30′30.0″E
95141 8Ed. 8/5/95 LAST NM 52/02 1/03 Substitute Solid line for dashed line between 34°30′55″N 127°14′38″E 34°30′55″N 127°15′01″E	(52(607, 608)99, 47(295)02 Inchon) 95167 10Ed. 9/26/98 LAST NM 44/02 1/03
and delete legend "Bkw Undr Constr"	Add Land tint to area (wharf) [F13] bound by shore
Add Solid line (breakwater) [F4.1] between 34°30′58″N 127°15′00″E 34°31′10″N 127°15′00″E	and solid line joining 36°03′06.3″N 129°22′34.8″E 36°03′03.5″N 129°22′48.8″E 36°03′04.1″N 129°22′49.0″E
(51(583)99 Inchon)	Position circle "Ferry terminal" 36°03′05.5″N 129°22′39.7″E
95143 11Ed. 5/15/99 LAST NM 50/02 1/03 Add Dashed-line circle "Marine farm" [K46.1] 34°30′10″N 127°47′58″E	Legend "Being Reclaimed (1993-2016)" 36°01'47.0"N 129°25'16.0"E (ROK CH 135; 52(606)99 Inchon)
(45(272)02 Inchon)	(Ito It of 150, 62 (660)) Incliding
95144 9Ed. 5/15/99 LAST NM 52/02 Add Racon [S3.1] at light 34°41′00″N 128°46′30″E (51(576)99 Inchon)	95171 1Ed. 12/11/93 LAST NM 37/01 1/03 Add Position circle "SS (Tide)" [T33] 36°40′38.6″N 129°29′11.6″E (45(613)02 Inchon)
95146 14Ed. 5/14/94 LAST NM 52/02 Add Racon [S3.1] at light 35°02′30″N 128°37′42″E (46(625)02 Inchon)	95172 1Ed. 8/28/93 LAST NM 37/01 1/03 Add Position circle "SS (Tide)" [T33] 36°40′38.6″N 129°27′11.6″E (See 44/96-95172)
95147 13Ed. 5/14/94 LAST NM 49/02 Add Racon [S3.1] at light 35°02′30.0″N 128°37′42.0″E Buoy "A" Y, pillar, Fl Y 4s Buoy "B" Y, pillar, Fl Y 4s 35°11′34.4″N 128°34′40.6″E	(45(613)02 Inchon) 95173 1Ed. 11/27/93 LAST NM 52/02 1/03 Relocate Light from 37°44′08.0″N 128°59′26.0″E to
Legend "Works in progress (1999)"	37°44′09.6″N 128°59′31.1″E (45(612)02 Inchon)
35°11′51.0″N 128°34′30.0″E (51(578)99, 46(625)02 Inchon)	
95151 17Ed. 11/28/98 LAST NM 50/02 Delete Buoy "B" 35°05′33.2″N 129°05′32.9″E Buoy "C" 35°05′33.4″N 129°05′44.5″E Buoy "E" 35°05′39.5″N 129°05′27.2″E	95180 11Ed. 6/15/96 LAST NM 50/02 1/03 Add Light Fl R 4s 10m 5M 37°44′10″N 128°59′31″E (45(612)02 Inchon)

05250 4FJ 7/12/07 LACT NIM 44/02	1/02	(5 29/02 0719	40
95250 4Ed. 7/12/97 LAST NM 44/02 Change Light to FI R 5M	1/03 39°45.6′N 140°02.3′E	(See 28/02-9718	
Light (Fl(2) 9M) to Fl(2) 3M (46(1578, 1579)02 Tokyo)	41°33.0′N 140°54.8′E	Substitute Depth 9.4 meter	35°01′42.6″N 136°48′06.0″E
		Depth 12.2 mete	35°01′28.3″N 136°48′16.0″E
95255 2Ed. 8/23/97 LAST NM 44/02 Add Position circle "SS" [T20] (43(1461)02 Tokyo)	1/03 37°59′31.1″N 139°12′55.9″E	Add Depth 12.2 mete Depth 9.8 meter Depth 9.8 meter Depth 12.2 mete	s 35°01'41.0"N 136°48'10.4"E s 35°01'39.0"N 136°48'14.2"E ers 35°01'36.0"N 136°48'12.3"E
95261 7Ed. 8/17/96 LAST NM 48/02 Change Light to FI R 5s 15m 5M (46(1578)02 Tokyo)	39°45′35″N 140°02′20″E	Depth 12.5 mete Depth 12.3 mete Depth 12.2 mete	35°01′29.0″N 136°48′19.0″E 35°01′23.8″N 136°48′23.4″E
95262 13Ed. 4/18/98 LAST NM 46/02 Change Light to Fl R 5s 15m 5M (46(1578)02 Tokyo)	1/03 39°45′35.0″N 140°02′20.0″E	Dashed line join	ing 35°01′37.8″N 136°48′14.0″E 35°01′19.8″N 136°48′27.5″E 35°01′19.0″N 136°48′38.8″E
•		Dashed line bety	ween 35°01′19.8″N 136°48′27.5″E 35°01′17.1″N 136°48′28.1″E
95341 8Ed. 2/22/97 LAST NM 47/02 Change Visibility (range) of beacon to (44(1501)02 Tokyo)	1/03 3M 34°02′25″N 130°53′34″E	Buoy Y, conical. (See 47/02-9718 (44(1498)02 Tokyo)	(Y Lt) 35°01′29.0″N 136°48′12.0″E
96943 15Ed. 12/9/95 LAST NM 44/02	1/03		
Change Visibility (range) of beacon to (46(1579)02 Tokyo)	3M 41°33′00″N 140°54′47″E	97185 2Ed. 4/10/99 LAST Relocate Buoy "No 10" fi 34°43′45.0″N 1	rom
96962 4Ed. 8/9/97 LAST NM 35/02 Change Visibility (range) of beacon to (46(1579)02 Tokyo)	3M 41°33′00″N 140°54′47″E	(43(1463)02 Tokyo)	
•	1/02	97188 2Ed. 6/25/94 LAST Delete Light	7 NM 52/01 1/03 34°46′57″N 137°04′48″E
97149 20Ed. 11/29/97 LAST NM 45/02 Change Visibility (range) of light to 3		Change Light to Fl G 3s	12m 3M 34°47′08″N 137°11′39″E) of beacon to 7M 34°46′37″N 137°04′50″E
(43(1462)02 Tokyo)	33 20 43.0 N 139 39 41.0 E	Visibility (range Visibility (range (43(1464), 45(1543, 1544)0) of light to 3M 34°46′13″N 137°10′27″E
97156 6Ed. 10/10/98 LAST NM 37/02 Change Visibility (range) of light to 1		97233 11Ed. 11/27/93 LAS	T NM 49/02 1/03
	35°17′04.0″N 139°33′54.0″E 35°16′58.5″N 139°33′28.0″E	Delete Depth 32 meters Depth 19 meters Depth 17 meters	34°29′48″N 134°00′06″E 34°29′03″N 134°01′39″E
(43(1353)02 TOKYO)		Substitute Depth 7.2 meter Depth 16 meters	s for 8.1 meters 34°30′24″N 133°59′38″E for 17 meters 34°27′54″N 134°02′12″E
97181 20Ed. 3/26/94 LAST NM 48/02 Delete Light Change Visibility (range) of light (6/1	1/03 34°47′09″N 137°04′37″E	Depth 10 meters Depth 11 meters Depth 22.5 mete Depth 11.3 mete	for 3.8 meters 34°26′30″N 134°01′00″E ars for 27 meters 34°25′08″N 134°06′24″E
	34°15′00″N 136°50′35″E	Depth 5.5 meter	s S Sh for 7.7 meters R 34°24′32″N 134°05′27″E
	34°47′20″N 137°11′20″E 4M 34°42′37″N 136°31′38″E M 34°46′25″N 137°10′16″E 2)02 Tokyo)	Add Depth 16.5 meter Depth 27 meters Depth 33 meters Depth 14.5 meter	34°28′26″N 134°02′06″E 34°28′00″N 134°01′21″E
97182 13Ed. 1/1/94 LAST NM 48/02 Delete Light	1/03 34°47′09.0″N 137°04′37.0″E	(44(1500)02 Tokyo)	
Delete Light Change Visibility (range) of beacon to		97234 17Ed. 12/26/98 LAS Delete Fish haven symb (See 29/02-9723	ool 34°31′24.0″N 134°00′36.0″E
Add Legend "Lesser depths rep (2)	002)" 34°32′33.0″N 136°56′55.0″E	Substitute Depth 19.7 meter	ers for 24 meters 34°30′41.0″N 134°00′00.0″E
Depth 26 meters Depth 26.5 meters Depth 24.5 meters	34°33′18.0″N 136°57′02.0″E 34°32′37.0″N 136°56′36.0″E 34°31′03.0″N 136°55′14.0″E	Add Depth 13.3 mete (44(1500)02 Tokyo)	ers 34°31′22.0″N 134°00′36.0″E
Depth 28 meters (43(1489), 45(1544)02 Tokyo)	34°30′22.0″N 136°55′59.0″E	97239 10Ed. 2/28/98 LAST	
97184 15Ed. 9/13/97 LAST NM 47/02 Delete Depth 12.5 meters	1/03 35°01′40.0″N 136°48′03.0″E	Add Legend "Lesser (45(1566)02 Tokyo)	depths rep (2002)" 34°21′16.0″N 133°11′37.0″E
Depth 9.5 meters Depth 9.6 meters Depth 12.6 meters Depth 10 meters	35°01'36.0"N 136°48'08.8"E 35°01'34.3"N 136°48'10.5"E 35°01'33.6"N 136°48'07.5"E 35°01'27.5"N 136°48'18.0"E	97243 8Ed. 3/7/98 LAST Change Visibility (range	NM 48/02 1/03) of light to 14M 34°11′20.0″N 132°55′05.0″E
Depth 9.9 meters	35°01′25.6″N 136°48′20.2″E	Add Legend "Lesser	depths rep (2002)"
Dashed line between	35°01′19.8″N 136°48′27.5″E 35°01′17.0″N 136°48′27.4″E	(45(1549, 1566)02 Tokyo)	34°21′16.0″N 133°11′37.0″E
Dashed line between	35°01′17.1″N 136°48′28.1″E 35°01′19.0″N 136°48′38.8″E		

97245 11Ed. 2/28/98 LAST NM 36/02 1/03 Delete CAUTIONS note 34°43′09.0″N 135°23′53.0″E	97400 3Ed. 10/28/89 LAST NM 26/02 1/03 Delete Depth 2.9 meters 33°09′35.0″N 129°43′30.0″E
Add Chartlet, depicting changes in hydrography,	Depth 3.4 meters 33°09′32.7″N 129°43′32.0″E Depth 6.6 meters 33°09′31.0″N 129°43′39.0″E
from Subsection I-3 34°40′54.0″N 135°24′26.0″E (See 41/99-97245)	Depth 4 meters 33°09′28.1″N 129°43′39.0″E Depth 0.7 meter 33°09′26.0″N 129°43′39.5″E
(23(794)02 Tokyo; Jpn CH W1107)	Depth 8.2 meters 33°09′23.0″N 129°43′38.0″E
97261 15Ed. 1/31/98 LAST NM 41/02 1/03	Substitute Solid line for dashed line joining 33°09′35.9″N 129°43′28.4″E
Change Visibility (range) of light to 14M 34°11′20″N 132°55′05″E (45(1549)02 Tokyo)	33°09′39.2″N 129°43′33.7″E 33°09′29.8″N 129°43′41.2″E
(15(15 17)52 15ky5)	33°09′28.0″N 129°43′41.0″E Note: Reclamation completed
97262 10Ed. 1/24/98 LAST NM 34/02 1/03 Change Visibility (range) of light to 14M	Solid line for dashed line between
(45(1549)02 Tokyo) 34°11′20.0″N 132°55′05.0″E	33°09′25.3″N 129°43′42.0″E 33°09′17.5″N 129°43′34.0″E
(43(1347)02 T0ky0)	Note: Construction completed
97266 5Ed. 7/5/97 LAST NM 41/02 1/03 Change Visibility (range) of light to 14M 34°11′20″N 132°55′05″E	Depth 7.9 meters for 5.4 meters 33°09'33.8"N 129°43'34.5"E
Change Visibility (range) of light to 14M 34°11′20″N 132°55′05″E (45(1549)02 Tokyo)	
97267 16Ed. 2/21/98 LAST NM 41/02 1/03	Add Depth 5.8 meters 33°09′33.0″N 129°43′33.2″E Depth 6.2 meters 33°09′31.1″N 129°43′34.9″E
Delete Position circles "Bns" (4), dashed lines (3) and	Depth 5.6 meters 33°09′26.1″N 129°43′32.0″E Depth 7.6 meters 33°09′24.5″N 129°43′29.7″E
legend "314°53′ 2040m" in vicinity 34°09′30″N 132°22′46″E	Depth 7.9 meters 33°09′25.0″N 129°43′35.0″E Depth 5.3 meters 33°09′23.8″N 129°43′39.2″E
(44(1507)02 Tokyo)	Depth 5.5 meters 33°09′22.0″N 129°43′37.7″E Depth 4.6 meters 33°09′18.8″N 129°43′34.3″E
97270 6Ed. 2/17/96 LAST NM 44/02 1/03	Berth designation "2" [F19] 33°09′21.5"N 129°43′39.5"E Berth designation "1" [F19] 33°09′18.0"N 129°43′36.0"E
Delete Beacons (4), dashed lines (3) and legend "314°53′ 2040.5m" in vicinity 34°09′30.0"N 132°22′46.0"E	(46(1573)02 Tokyo)
(44(1507)02 Tokyo)	97420 17Ed. 9/20/97 LAST NM 52/02 1/03
97277 11Ed. 11/27/93 LAST NM 27/02 1/03	Change Visibility (range) of light to 3M 34°02.4′N 130°53.6′E (44(1501)02 Tokyo)
Change Characteristic of buoy "2" to Iso 4s 33°19'42"N 131°47'03"E	
Characteristic of buoy "3" to Iso 4s 33°18′39″N 131°41′12″E	97421 13Ed. 3/30/96 LAST NM 36/02 1/03 Change Visibility (range) of light to 9M
(44(1508)02 Tokyo)	33°36′26.0″N 130°22′41.0″E Visibility (range) of light to 10/6M
97278 11Ed. 4/14/90 LAST NM 39/02 1/03	33°36′22.0″N 130°22′40.0″E
Change Characteristic of buoy "No 2" to Iso 4s 33°19′42″N 131°47′03″E	Add Depth 10.5 meters 33°40′29.0″N 130°16′51.0″E (43(1494), 44(1510)02 Tokyo)
Characteristic of buoy "No 3" to Iso 4s 33°18′39″N 131°41′12″E	ATTACAMENT AND ASSOCIATION ASS
(44(1508)02 Tokyo)	97423 2Ed. 5/25/96 LAST NM 36/02 1/03 Change Visibility (range) of light to 9M
97300 6Ed. 12/13/97 LAST NM 12/02 1/03	33°36′26.0″N 130°22′41.0″E Visibility (range) of light to 10/6M
Delete Light (F Fl 5s) 33°04.3′N 133°06.9′E (46(1583)02 Tokyo)	33°36′22.0″N 130°22′40.0″E (44(1510)02 Tokyo)
97380 7Ed. 8/23/97 LAST NM 52/02 1/03	97425 6Ed. 1/30/99 LAST NM 52/02 1/03
97380 7Ed. 8/23/97 LAST NM 52/02 1/03 Change Visibility (range) of light to 11M 32°55.2′N 128°55.8′E	97425 6Ed. 1/30/99 LAST NM 52/02 1/03 Add Depth 33 meters 33°37′08″N 130°04′31″E (43(1494)02 Tokyo)
Add Submarine cable [L30.1] joining 32°45.2′N 128°13.4′E 32°41.9′N 128°13.5′E	(+3(1+7+)02 10Ky0)
32°35.5′N 128°14.0′E 32°35.3′N 128°14.0′E	97440 8Ed. 6/21/97 LAST NM 52/02 1/03 Add Submarine cable [L30.1] joining 31°45.2′N 128°36.5′E
32°23.4′N 128°25.0′E 32°21.2′N 128°26.6′E	31°29.8'N 128°30.9'E
32°12.8′N 128°35.8′E 32°11.6′N 128°37.9′E	Submarine cable [L30.1] joining 31°45.2′N 128°41.5′E
32°05.3′N 128°43.6′E 32°00.7′N 128°45.6′E	31°34.3'N 128°36.5'E 31°30.5'N 128°35.5'E
31°55.0′N 128°44.3′E 31°55.0′N 128°45.3′E	31°28.3′N 128°37.8′E 31°27.5′N 128°37.9′E
31°48.3′N 128°43.1′E 31°34.3′N 128°36.5′E	31°24.1'N 128°36.2'E 31°13.1'N 128°32.4'E
31°31.4′N 128°35.4′E 31°30.2′N 128°35.5′E	31°06.6′N 128°31.7′E 31°05.9′N 128°31.4′E
Submarine cable [L30.1] joining 34°10.2′N 128°35.5′E	30°53.1'N 128°31.2'E 30°48.4'N 128°30.0'E
33°56,9'N 128°27.3'E 33°47.5'N 128°27.3'E 33°47.5'N 128°23.9'E	Submarine cable [L30.1] joining 30°22.4′N 128°30.0′E
32°30.8'N 128°09.8'E 31°55.8'N 128°40.4'E	30°21.1'N 128°30.8'E 30°12.7'N 128°31.2'E
31°30.2′N 128°31.2′E (43(1468), 45(1550)02 Tokyo; 23(132)02 Inchon)	(23(132)02 Inchon; 43(1468)02 Tokyo)
(.5(1.100), 15(1550)02 10kJ0, 25(152)02 HeIOH)	97465 9Ed. 2/3/96 LAST NM 21/02 1/03
97392 5Ed. 2/15/97 LAST NM 21/02 1/03 Change Visibility (range) of light to 11M 32°55′12″N 128°55′48″E	Change Visibility (range) of light to 7M 26°13′26″N 127°38′34″E (43(1470)02 Tokyo)
(45(1550)02 Tokyo)	((
Ι)	12

97466 2Ed. 9/12/98 LAST NM 46/02 1/03
Change Visibility (range) of light to 7M 26°13′26.3″N 127°38′33.8″E

Add Double dashed line with land tint (breakwater extension under construction) between 26°13′26.3″N 127°38′34.6″E 26°13′28.4″N 127°38′34.1″E

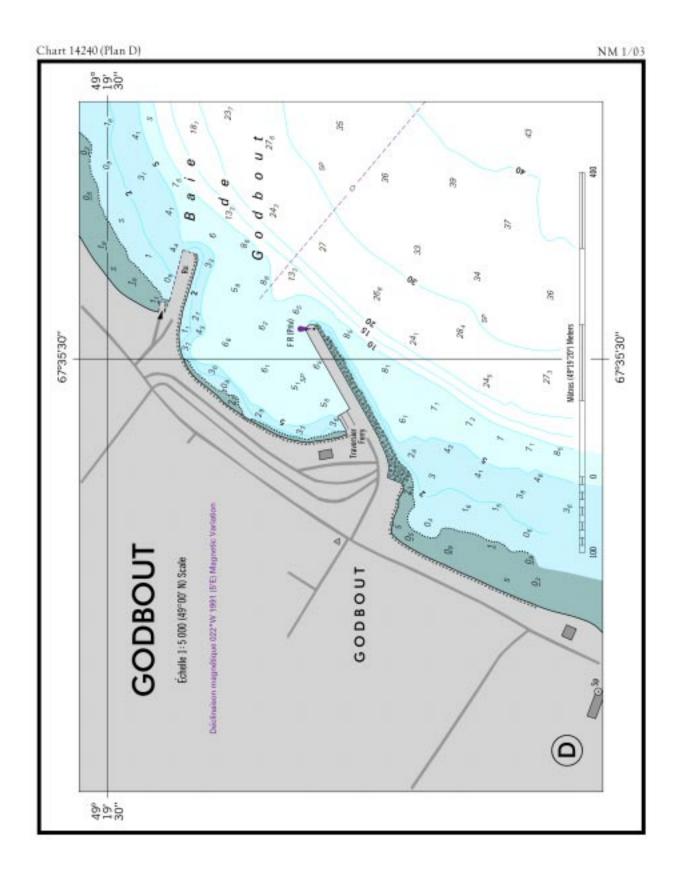
(43(1470)02 Tokyo)

97469 10Ed. 7/19/97 LAST NM 26/02 1/03
Add Beacon "5" G, can topmark, FI G 3s 2M 26°07′54.0″N 127°46′35.0″E Beacon "4" R, cone topmark, FI R 3s 2M 26°07′44.0″N 127°46′42.0″E Beacon "2" R, cone topmark, FI Q) R 6s 3M 26°07′44.0″N 127°46′50.0″E

(45(1537)02 Tokyo)

802202 8Ed. 4/15/78 LAST NM N35/02 N1/03 Delete HORN from light 38°07′40″N 76°17′27″W (46/02 CG5)

I-2.14



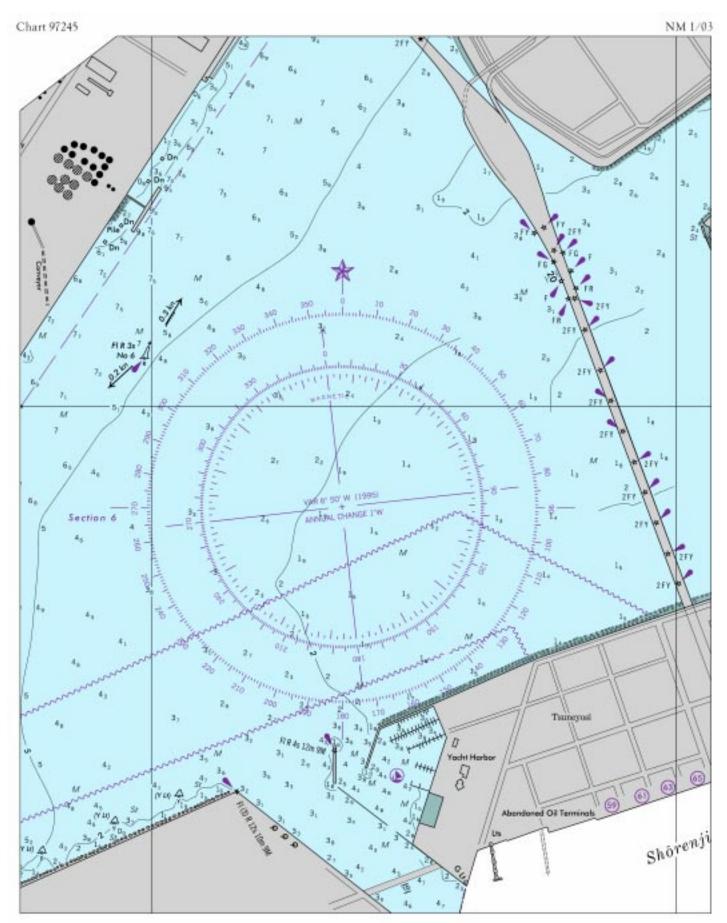


Chart 11323 NM 1/03

GALVESTON BAY ENTRANCE - CHANNEL DEPTHS											
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW TIDE (MLT). PROJECT DIMENSIONS											
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)			
ENTRANCE CHANNEL	43.0	46.0	43.0	37.0	9-02	800-1000	7.5	45			
OUTER BAR CHANNEL	39.0	45.0	47.0	48.0	9-02	800	1.5	45			
INNER BAR CHANNEL	38.0	42.0	43.0	37.0	9-02	800	2.9	45			

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS. DEPTHS ARE REFERENCED TO A LOCAL DREDGING REFERENCE CALLED MEAN LOW TIDE. FOR AN APPROXIMATE CONVERSION TO MEAN LOWER LOW WATER, ADD 1 FOOT TO EACH DEPTH IN THE TABULATION. NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11324 NM 1/03

GALVESTON BAY AND HOUSTON SHIP CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2002												
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW TIDE (MLT) PROJECT DIMENSIONS												
NAME OF CHANNEL LEFT RIGHT RIGHT OUTSIDE INSIDE INSIDE OUTSIDE QUARTER QUARTER QUARTER QUARTER LEFT RIGHT OUTSIDE SURVEY WIDTH (NAUT. MILLW (FEET) MILES) (FEET)												
GALVESTON HARBOR:												
ENTRANCE CHANNEL	43.0	46.0	43.0	37.0	9-02	800-1000	7.5	45				
OUTER BAR CHANNEL	39.0	45.0	47.0	48.0	9-02	800	1.5	45				
INNER BAR CHANNEL	38.0	42.0	43.0	37.0	9-02	800	2.9	45				
BOLIVAR ROADS CHANNEL	48.0	48.0	46.0	41.0	9-02	800	0.7	45				
HOUSTON SHIP CHANNEL:												
BOLIVAR ROADS TO LOWER												
END OF MORGAN PT.	29.0	34.0	40.0	34.0	6-01; 7-02	400-530	23.4	40				
GALVESTON CHANNEL	25.0	31.0	34.0	24.0	7-02	1125-1075	3.5	40				
TEXAS CITY CHANNEL	36.0	42.0	42.0	39.0	7-02	400	5.9	40				
TEXAS CITY TURNING BASIN	38.0	39.0	40.0	38.0	7-02	1200	0.5	40				

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS. DEPTHS ARE REFERENCED TO A LOCAL DREDGING REFERENCE CALLED MEAN LOW TIDE. FOR AN APPROXIMATE CONVERSION TO MEAN LOWER LOW WATER, ADD 1 FOOT TO EACH DEPTH IN THE TABULATION.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11375 NM 1/03

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2002 AND SURVEYS TO AUG 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS											
NAME OF CHANNEL	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)								
HORN ISLAND PASS CHANNEL	40.7	40.3	33.2	8-00	450	4.4	40.0				
PASCAGOULA CHANNEL	32.3	34.2	34.8	11-01; 1,6,8-02	350	10.8	38.0				
TURNING BASIN	34.4	38.0	37.6	8-02	950	0.4	38.0				
BAYOU CASOTTE CHANNEL	39.4	42.0	39.8	6-02	350	3.3	42.0				
TURNING BASIN	42.0	42.0	42.0	6-02	1000	0.3	42.0				

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11412 NM 1/03

TAMPA BAY CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2002 AND SURVEYS TO MAY 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS											
NAME OF CHANNEL LEFT LEFT RIGHT RIGHT OUTSIDE INSIDE OUTSIDE DATE OF SURVEY QUARTER QUARTER QUARTER QUARTER LENGTH DEPTH (NAUT. MILLW (FEET) MILES) (FEET)											
EGMONT CHANNEL	26.6	42.9	44.8	38.6	5-02	700-1000	3.9	45			
MULLET KEY CHANNEL	39.9	43.0	41.1	36.1	5-02	600-900	2.9	43			
CUT A CHANNEL	39.9	42.5	42.6	41.9	5-02	500-700	2.7	43			
CUT B CHANNEL	42.8	43.3	43.0	42.3	5-02	500-700	3.4	43			
CUT C CHANNEL	42.8	44.3	44.3	42.9	5-02	500-750	1.7	43			
CUT D CHANNEL	41.5	42.9	43.1	42.2	5-02	500-650	2.1	43			
CUT E CHANNEL	42.1	42.2	42.8	42.9	5-02	500-700	2.1	43			
CUT F CHANNEL	41.1	43.3	43.1	42.0	5-02	500	1.6	43			
EAST WIDNER	42.6	43.0	40.8	41.2	5-02	0-2880	0.4	43			
WEST WIDNER	32.7	33.9	34.6	35.0	5-02	0-970	0.25	34			
CUT G CHANNEL	32.5	34.6	34.9	33.4	4-01; 4-02	400	2.7	34			
GADSDEN PT. CUT	40.7	41.7	43.8	42.0	3-02	500	3.05	43			

Chart 11415 NM 1/03

TAMPA BAY ENTRANCE CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2002 AND SURVEYS TO MAY 2002												
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS												
NAME OF CHANNEL	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)									
EGMONT CHANNEL	26.6	42.9	44.8	38.6	5-02	700-1000	3.9	45				
MULLET KEY CHANNEL	39.9	43.0	41.1	36.1	5-02	600-900	2.9	43				
CUT A CHANNEL	39.9	42.5	42.6	41.9	5-02	700	2.7	43				
CUT B CHANNEL	42.8	43.3	43.0	42.3	5-02	700	3.4	43				

Chart 11416 NM 1/03

TAMPA BAY CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2002 AND SURVEYS TO MAY 2002											
CONTROLLING DEPTHS FROM SEA	WARD IN F	EET AT M	EAN LOW	ER LOW W	ATER (MLLW)	PROJE	CT DIME	NSIONS			
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)			
MULLET KEY CHANNEL	39.9	43.0	41.1	36.1	5-02	600-900	2.9	43			
CUT A CHANNEL	39.9	42.5	42.6	41.9	5-02	500-700	2.7	43			
CUT B CHANNEL	42.8	43.3	43.0	42.3	5-02	500-700	3.4	43			
CUT C CHANNEL	42.8	44.3	44.3	42.9	5-02	500-750	1.7	43			
CUT D CHANNEL	41.5	42.9	43.1	42.2	5-02	500-650	2.1	43			
CUT E CHANNEL	42.1	42.2	42.8	42.9	5-02	500-700	2.1	43			
CUT F CHANNEL	41.1	43.3	43.1	42.0	5-02	500	1.6	43			
EAST WIDENER	42.6	43.0	40.8	41.2	5-02	0-2880	0.4	43			
WEST WIDENER	32.7	33.9	34.6	35.0	5-02	0-970	0.25	34			
CUT G CHANNEL	32.5	34.6	34.9	33.4	4-01; 4-02	400	2.7	34			
G TO J WIDENER	35.8	35.9	35.1	34.5	4-02	0-770	.52	34			
CUT J CHANNEL	32.1	35.2	34.0	33.9	4-02	400-450	1.2	34			
CUT J2 CHANNEL	35.4	37.0	36.6	35.9	4-02	400-450	0.9	34			
CUT K CHANNEL	31.1	36.2	36.1	32.4	4-02	400	2.0	34			
CUT K TURNING BASIN	29.4	32.4	37.7	31.6	4-02	400-750	0.5	34			
GADSDEN PT. CUT	40.7	41.7	43.8	42.0	3-02; 5-02	500	3.05	43			
HILLSBOROUGH BAY											
CUT A CHANNEL	41.0	42.6	39.1	36.4	3-02	500	1.0	43			
A TO C WIDENER	36.0	37.4	39.3	40.9	3-02	0-1000	0.7	43			
CUT C CHANNEL CUT D CHANNEL	35.8	40.1	38.5	36.7	3-02	500	5.6	43			
SEDDON CHANNEL	31.3 8.2	36.1 14.5	36.6 19.7	31.9 21.4	3-02 3-02	400 200	1.0 1.1	41 12			
GARRISON CHANNEL (A)	24.6	27.2	27.9	28.3	3-02	300	0.4	30			
SPARKMAN CHANNEL	27.5	35.5	35.2	30.3	3-02	400	1.2	34			
YBOR TURNING BASIN	34.4	36.1	33.5	30.3	3-02		0.3	34			
YBOR CHANNEL	29.3	32.2	31.0	30.2							
					3-02	400	0.6	34 43			
PORT SUTTON ENTRANCE CHANNEL SOUTH WIDENER	41.5 37.7	42.3 37.3	42.8 36.9	38.1 35.9	3-02 3-02	400 0-540	0.3	43			
PORT SUTTON TURNING BASIN	37.2	40.2	39.8	40.9	3-02			43			
EAST BAY CHANNEL	37.2	40.2	39.8	40.9	3-02	400-1930	0.4	43			
TO TURNING BASIN	43.3	44.0	43.9	42.7	3-02	600		40			
		44.9				600	0.6	43			
TURNING BASIN	44.1	45.0	45.1	45.1	3-02	300-800	0.3	43			
NORTHEAST OF TURNING BASIN UPPER EAST BAY	43.9	44.4	44.0	43.5	3-02	300	0.4	43			
	l				١	l					
CHANNEL TO UPPER BASIN	34.0	35.0	35.0	34.9	3-02	300	0.6	34			
TURNING BASIN	33.9	35.5	35.1	32.0	3-02	300-789	0.5	34			
A GARRISON CHANNEL HAS BEEN DEALD	TUODIZED A	O A EEDED	ALL V MAIN	ITAINED NA	VIOATION DDO IECT	CHOM INC TH	DOLLOH	OUT			

A. GARRISON CHANNEL HAS BEEN DEAUTHORIZED AS A FEDERALLY MAINTAINED NAVIGATION PROJECT. SHOALING THROUGHOUT WESTERN PORTION OF CHANNEL.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11506 NM 1/03											
	BRUNSW	ICK HARBO	OR CHANN	IEL DEPTH\$							
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS											
NAME OF CHANNEL LEFT MIDDLE RIGHT OUTSIDE HALF OF OUTSIDE DATE OF SURVEY OUARTER CHANNEL QUARTER WIDTH LENGTH DEPTH (NAUT. MILLW (FEET) MILES) (FEET)											
BAR CHANNEL											
(ST SIMON RANGE)	27.5	30.0	A27.0	10-02	500	7.7	32				
PLANTATION CREEK RANGE	34.0	40.0	39.0	10-02	400	1.8	32				
JEKYLL ISLAND RANGE	28.5	32.0	32.0	10-02	400	1.9	30				
CEDAR HAMMOCK RANGE	30.0	31.0	30.0	10-02	400	1.4	30				
BRUNSWICK PT CUT RANGE	27.5	29.0	26.5	10-02	400	2.4	30				
EAST RIVER											
LOWER REACH	B28.5	30.0	28.0	10-02	400	1.1	30				
UPPER REACH	26.5	27.0	25.5	10-02	350	1.0	27				
EAST RIVER TURNING BASIN	26.5	26.0	26.0	10-02	750	0.2	30				
TURTLE RIVER LOWER RANGE	34.0	31.0	30.0	10-02	300	1.7	30				
BLYTHE ISLAND RANGE	31.0	26.0	26.0	10-02	300	1.5	30				
TURTLE RIVER UPPER RANGE	28.0	27.5	26.0	10-02	300	1.7	30				
SOUTH BRUNSWICK RIVER	31.0	32.0	29.5	10-02	400	1.3	30				

- A. OBSTRUCTION REPORTED WITH A DEPTH OF 29 FEET, LOCATED AT 31°04'06.6"N; 081°16'35.7"W.
- B. THE EAST RIVER, LOWER REACH WIDENER LEAST DEPTHS WERE 28 0 FEET, LOCATED 50 FEET INSIDE THE CHANNEL LIMIT, AND 31.0 FEET, LOCATED 150 FEET INSIDE THE CHANNEL LIMIT FROM THE LEFT SIDE.
- NOTE FOR THE LEFT OUTSIDE AND RIGHT OUTSIDE QUARTERS, DEPTHS GIVEN REPRESENT CONDITIONS 50 FEET INSIDE THE CHANNEL LIMITS. (EXCEPT FOR THE EAST RIVER TURNING BASIN)

NOTE-CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14839 NM 1/03

CLEVELAND HARBOR CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2002 AND REPORTS TO SEP 2002 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD) PROJECT DIMENSIONS LEFT LEFT RIGHT LENGTH DEPTH WIDTH NAME OF CHANNEL OUTSIDE DATE OF SURVEY (NAUT. MILES) INSIDE INSIDE OUTSIDE (FEET) QUARTER QUARTER QUARTER LAKE APPROACH CHANNEL 28.4 31.8 30.4 27.3 600-750 0.22 29 ENTRANCE CHANNEL 27.4 29.1 29.1 25.5 5-02 225-750 0.22 28 CUYAHOGA RIVER PIER RANGE A20.4 27.8 28.0 B20.3 5-8-02 230 0.30 27 THENCE TO LORAIN CARNEGIE VIADUCT BRIDGE 10.7 22.2 22.4 5-8-02 100-700 2.69 11.1 23 THENCE TO END OF PROJECT C10.7 D22.0 E18.9 F14.0 110-400 3.11 23 5-8-02 FROM CUYAHOGA RIVER TO END OF PROJECT 16.3 22.2 22.1 G17.6 125-200 1.10 27 3,4-02 EAST BASIN AIRPORT RANGE H20.0 23.6 23.5 20.3 8.9-01 500 3.11 25 TURNING BASIN 22.8 22 9 23.3 22.3 8.9-01 400-1600 0.33 25 EASTERN SECTION 22.6 23.2 22.4 17.3 8.9-01:5-02 1250-1540 0.72 27 WESTERN SECTION 26.1 28.3 23.7 21.0 5-02 1300-1540 0.28 28 WEST BASIN 124.3 J25.2 K24.1 120.2 9-01:5-02 1150-1570 0.91 28

- A. EXCEPT FOR SHOALING TO 16.2 FEET AT 41°30'00.5'N 081°42'31.4'W.
- B. EXCEPT FOR SHOALING TO 16.1 FEET AT 41°29'59.8'N 081°42'34.3'W.
- C. EXCEPT FOR SHOALING TO 7.3 FEET AT 41°29'22.5"N 081°40'59.8"W AND 9.6 FEET AT 41°27'52.9"N 81°40'35.8W.
- D. EXCEPT FOR SHOALING TO 10.8 FEET IN LAST 600 FEET OF QUARTER.
- E. EXCEPT FOR SHOALING TO 9.1 FEET IN LAST 1000 FEET OF QUARTER.
- F. EXCEPT FOR SHOALING TO 1.9 FEET IN LAST 900 FEET OF QUARTER AND 2.1 FT AT 41°29'10.4°N 081°40'47.0°W.
- G. EXCEPT FOR SHOALING TO 8.3 FEET AT 41°29'51.2"N 081°42'43.9"W.
- H. EXCEPT FOR SHOALING TO 18.7 FEET AT 41°31'08.3"N 081°41'19.1"W AND 19.4 FEET AT 41°31'52.3"N 081°41'01.6"W.
- I. EXCEPT FOR SHOALING TO 20.5 FEET IN WESTERN 450 FEET OF PROJECT.
- J. EXCEPT FOR SHOALING TO 18.4 FEET IN WESTERN 550 FEET OF PROJECT.
- K. EXCEPT FOR SHOALING TO 16.1 FEET IN WESTERN 900 FEET OF PROJECT.
- L. EXCEPT FOR SHOALING TO 15.6 FEET IN WESTERN 500 FEET OF PROJECT.
- NOTE CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 51061

NM 1/03

VOLCANIC ACTIVITY

Intense volcanic activity is occuring near Ponta da Serreta. Volcanic outcrops and gas releases should be expected. Changes in bathymetry, particularly in minimum depths, as well as reduced visibility and the appearance of floating obstacles are likely to occur.

Chart 62433

NM 1/03

CAUTIONS

- Dredged depths charted within Mina Ash Shuwaykh and the approach channel are subject to sitation and liable to change. For the latest information, mariners are advised to consult the Port Authority and Sailing Directions.
 The limits of this chart fall within a former mined area.
- 2. The limits of this chart fall within a former mined area in which mines could still present a hazard. Anchoring, fishing or seabed operations are not recommended anywhere within this area. However, where anchoring is necessary, it should be carried out within the designated areas as directed by the local authority. Additionally, drifting mines may be encountered anywhere. For the latest details on the former mined area, see Annual Notice to Mariners.

Chart 62439 (Panel B)

NM 1/03

CAUTION

Mariners should navigate with extreme caution in Shatt al Arab. It was reported in 1997 that the maximum permissible draft for vessels using the Shatt al Arab was 5 meters. The river has not been systematically maintained since 1980 and siltation has been heavy. In addition, there are reports of numerous uncharted wrecks and obstructions are reports of numerous uncharted wrecks and obstructions in the river. Some of the wrecks may contain explosive material and underwater obstructions may exist where bridges and jetties have been removed or destroyed.

2. The aids to navigation on this chart are reported to be unreliable. They may be missing, until or out of position.

Vessels should navigate with particular caution.

CHARTS AFFECTED BY NOTICE TO MARINERS **NM 2/02 THROUGH NM 1/03**

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
12 50 51 52 53	5 1 1 2 2	14,18/02 5,17/02	11319 11320 11321 11322 11323	30 1 29 27 59	11,13,25,40/02 N8,N9,N28/02 12*,22,28,39,40,41,45/02 21,22,24,36,37,49/02 26*,28,33,37,39,45/02;	11375 11376 11377 11378	35 48 4 31	1/03* 9*,13,15,16,21,22,23,25, 27,29,31,40,43,50/02 26*,40,50/02 10*,16,18,22,23,25,27,	11507 11509 11510 11511 11512	16	24,34,48/02 12*,20/02;1/03 34/02 12/02* 10,15,16,18,20,26,28,31,
101 108 400 401 411 500	9 3 5 48	48/02 12,13,32,35/02 23,26,31,32,33,35,45/02 22,23,26,31,33,35,45/02 11,13,16,22,23,26,31,32, 33,5,40,42,45,50/02 5/02	11324 11325 11326	32 34 30	1/03 22*,24,25,31,33,37/02; 1/03 19*,21,24,35,37,49/02 4,5,67,8,9,10,11,15,16, 21,22,24,25,31,33,36,37, 47/02:1/03	11382 11383 11384 11385 11388 11389	39 49 32 25 16 32	30,32,40,50/02 46/02* 19*,22,27,30,32/02 3,10,18,22,30,32/02 23/02* 7,10,17/02 2*,7.8,11,18,23,28,33,	11513 11514 11515 11516 11517 11518	26 17 29 17	34,40,48,49/02;1/03 4,18,32,49/02;1/03 37*,40,49/02 10/02* 7*,18,24,37,49/02 32/02 6,15,16,32,35,43,48,
501 502 507 508 509 513	11 2 2 2 4	6,8,10,34,38/02 52/02 45/02 15,24,45/02 14/02 5,17,38/02	11327 11328 11329	30 22 34	5,7,10,11,16,21,22,24,28, 37,49/02;1/03 6,7,9,10,21,36,37,39,47, 49/02	11390 11391 11392 11393 11400		37/02 23*,27,33,34,37/02 6,8,18,23,33,34/02 2,10,34/02 5*,7,8,11,18/02 9*,11,23,39/02	11520 11521 11523 11524	40 26 21	52/02
520 521 522 523 524	11 87 8	5,8,20,38/02 5,17/02 14,18/02 5,17/02 14,18,47/02	11330	13 18	4,6,7,8,9,10,11,12,15,16, 17,19,22,23,24,25,26,28, 29,30,31,33,34,36,37,39, 40,41,42,43,51/02;1/03 11,17,23/02	11401 11404 11405 11407 11408	29 21 28 18 27	8,23/02 15,23,50/02 31/02* 15/02* 15/02	11525 11527 11531	6 16 21	N2,N12,N14,N17,N19, N23,N39,N40,N44,N46, N51/02 12,37/02 31/02*
525 526 530 531 532 540	3 10 30 21 17	14,18/02 7,9,12,18,47/02 22*,26,37,38,40,52/02 18*,47,52/02 5,17,38/02	11332 11333 11340	28 1	42*,43,49,51/02 N28/02 4,5,6,7,8,9,10,11,12,13, 14,15,16,17,19,22,23,24, 25,26,27,28,29,30,31,32,	11411 11412 11415 11416 11420	14 41 5 5 26	43*,45/02 42*,45/02;1/03 42*,45/02;1/03 42,48/02;1/03 5,20,39,42/02 N20,N24,N39,N42/02	11532 11534 11535 11536 11537	20 31 12	15*,37/02 2*,9,13,14,32/02 12*,25,46/02 19*,40/02 7*,8,9,13,17,20,23,31,32,
550 601 602 603 604	7 4 6 6	51/02 18,24,45/02 14/02 12,47/02 47/02 12,18/02	11341 11342	38 51	33,34,35,36,37,39,40,42, 43,45,47,51/02;1/03 67,9,10,11,12,16,18,21, 22,23,24,28,30,31,34,36, 37,39,43,49/02 7,11,14,17,21,23,24,30,	11423 11424 11425 11426 11427 11428	32	21,24,36,42/02	11539 11541 11542 11543		33,39,40,42,44,50/02 2,9,39,44,51/02 2,8,13,18,20,21,30,39,44, 47/02 39/02 13,18,29,39/02
605 606 607 621 622	4 1 1 5	9,12/02 9/02 9/02 7/02 7,22/02 9,12,14,20,47/02	11342 11343 11344	36 34	37,43,49/02 7,17,21,23,37,40,49/02	11429 11430 11431 11434 11435	21	47/02* 16/02 31/02* 21/02* N20/02	11544 11545 11547 11548 11555	37 60 35 38	36/02* 13,18,29,37/02 36/02* 45*,47/02 22*,25,29,30,37,47/02 47/02* 36/02*
623 624 632 703 705	3 8 4 3	14,47/02 22/02 15,24,45/02 46/02 12,46,52/02	11345 11347 11348 11349 11350	30 33 19 40 24	15/02*	11439 11441 11446 11447 11450	35 8	15/02* 13,36/02 36/02 38/02* 26*,28/02	12200 12201 12204 12205	25 34 27	38*,42,52/02 N14,N15,N17,N19,N23, N42,N52/02 13,20/02 37*,43,52/02
709 800 803 1113A 1114A 1115A	1	50/02 17/02 8,17/02 5,20,39,42/02 9*,11,23,39/02 1/03*	11351 11352	37 35	5,6,8,9,10,11,12,15,16, 19,22,27,28,30,33,36,37, 38,40,47,51/02 2*5,6,7,8,12,14,16,17, 22,24,26,27,37,38,39,40, 51/02	11451 11452 11460 11461 11462 11464		8*,22,28,43/02 31/02* 36*,50/02 5,28/02 22*,28/02 28/02	12206 12207 12208 12210 12211 12214	20 8 35 40	31*,33,38,46/02 2,11,23,50,52/02 12*,18,23,50,52/02 22*,28,43,51/02 15*,27,28,51/02 5,11,12,23,26,27,42/02
1115A 1116A		4,5,6,7,8,9,10,11,12,13, 14,15,16,17,19,22,23,24, 25,26,27,28,29,30,31,32, 33,34,35,36,37,39,40,42, 43,45,47,51/02;1/03	11353 11354 11355			11464 11465 11466 11467 11468	36	26/02 52/02* 4,5,8,12,15,24,26,27,28, 29,30,35,50/02 47*,50/02 42*,43,49/02	12214 12216 12221 12222 12224	27 73 42	3,11,12,25,26,27,42/02 47/02* 52/02*;1/03 13*,27,30,33,34,38,43, 44,46,50,52/02 34,39,43,46,47/02
1117A 11004		28*,30,31,37,39,40,41, 42,45,51/02;1/03 4,7,8,9,10,11,12,13,15, 16,18,22,26,28,31,37,39, 40,42,43,45,47,51/02	11356 11357 11358	34 35		11469 11470 11472 11474 11475	5	4,5,8,15,24,27,35,50/02 2*,4,24,27/02 16,26,27,28,29,30,51/02 16/02 16,27,51/02	12225 12226 12228 12230 12231	53 16 29	28*,30,31,47/02 2*,22,30/02 43/02* 52/02*;1/03 9*,14,31,35,46/02
11006 11009 11013 11300	36	28*,36,39,40/02 2*,5,12,19,23,24,32,35, 44,51/02 18*,20,35,50/02 26*,28,30,31,37,39,40,	11359 11360 11361 11362		22*,26,39/02 1/03* 13*,16,17,19,22,24,25, 26,27,31,34,36,45,51/02 N5,N6,N7,N8,N10,N12,	11476 11477 11478 11479	19 6	16/02 N2,N16/02 2,4,15,16,31,49/02	12233 12235 12237 12238 12241	34 29 26 37	1/03 12*,30,31,47/02 14,27,47/02 46/02*;1/03 9*14,16,34,44/02
11301 11302 11304 11305	29 12	41,42,45,51/02;1/03 7,10,14,21,37/02 34*,37/02 10/02 N6,N7,N11,N21,N26,	11363	38	N13,N14,N16,N17,N18, N22,N23,N24,N28,N29, N31,N33,N36,N39,N40, N47/02 26*,29,35,38,40,43,49,	11480 11481 11484 11485	4 21	N50/02 6,32,35/02;1/03 42*,49/02 15,16/02 15,34/02	12243 12245 12248 12251	13 60 39 23	5/02 12*,14,15,27,30,33,38, 46,49,50,52/02 18*,30,33,40,50/02 10,35/02
11307 11308 11309	21	N29,N36,N46/02;N1/03 9,13,28,31/02 4,6,18,26/02;1/03 13*,14,21,26,28,36, 46/02;1/03	11364 11365	38 17	51/02 5,8,10,11,13,16,17,22,25, 30,33,35,37,38,39,43, 49/02 52/02*	11487 11489 11490 11491		9/02* 11,24/02 2/02 2,18,22,28,29,30,34,37, 38/02	12252 12253 12254 12255 12256	42 43 15	5,33,34/02 9*,33,38,42,46,50/02 38*,43,44/02 13*,44/02 19*,33,44/02
11310 11311 11312 11313	23 3 22	N4,N7,N8,N21,N46/02 15*,21,46/02 2*,4,7,8,21,26,28,36, 46/02;1/03 4,31/02	11366 11367 11368 11369	7 31 22	48*,51/02 5,12,16,17,25,33/02 38/02* 5,8,12,16,17,25,30,33,35, 38,39,43,49/02	11492 11493 11494 11495 11496		9/02* N11,N24,N39/02 N11,N12,N24,N39/02 19/02* N6,N32,N35/02;N1/03	12261 12263 12264 12266 12268	28 51 28 27	37*,44/02 38/02* 38/02* 30/02 22/02*
11314 11315 11316	21 30 38	4,8,14/02 37/02* 4,11,13,14,16,21,25,36, 37,40,49/02 20*,21,25,37,40,49/02	11370 11371 11372 11373	35 29	2*,5,6,17,31,33,40,51/02 9/02 6,7,9,12,17,23,27,30, 45/02	11498 11502 11503 11505	16		12270 12272 12273 12274 12277	31 29 53	3,5,8,14,21,27,36/02 26*,27,36,45/02 26*,31,36,45,50/02 37*,50/02 26*,50/02
11318		N6,N7,N12,N21,N29, N46/02	11373		49/02	11506	39	5,12,18,25,32,35,39,49, 52/02;1/03	12278		

CHARTS AFFECTED BY NOTICE TO MARINERS NM 2/02 THROUGH NM 1/03

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
12280	3	37*,43,45,46,47,50,	13227	13	2,4,5/02	14240	6	16,34/02;1/03 34/02 19,34/02 19/02 35/02 35/02 52/02 16,17,26,33,37,40,52/02 52/02	14929	23	18,31,32/02
12281	49	52/02;1/03 15/02	13228	11 27	51,52/02 11,17,39,42,45,52/02;	14242	8	34/02 19,34/02	14930	24	45/02 35/02*
12282 12283	33	31*,44/02	12220	15	1/03	14244	5 47	19/02	14932	22	32/02
12285	34	27,39,43/02;1/03	13232	43	11,39,42/02	14280	37	35/02	14934	26	4,6/02
12286 12287	28	2/02 2/02	13233	16 5	17/02 17/02	14310	25	52/02 16 17 26 33 37 40 52/02	14935 14937	21	17/02 52/02*
12288	19	2,27/02	13236	29	45/02;1/03	14342	20	52/02	14942	25	35/02
12289 12300	47	39/02 17,18,19,28,29,37,39,42,	13237	38 15	2,4,17,42,48/02 21*,34,42/02	14344	5	37,40/02 37,40/02	14963	20	51/02 10/02
12301	21	45/02 N20* N29 N20 N27	13244	39	22*,48/02	14349	7	16/02 N52/02	14970	25	10/02 6,40,46,51/02 21/02
12301	21	N39,N42,N45/02	13240	17	20,26,51/02	14357		N17,N36/02	14972	24	32/02
12304 12311	42	28*,42,52/02 2 4 15 18 28 31 42 50	13260	38	28*,36,43,48,49,50/02; 1/03	14360 14386	36 3	16,26,33,36/02 36/02	14975 14984	33	52/02* 18/02*
12311	-11	52/02	13263	7	N2,N8,N11,N20,N21,	14415	4	33/02	14995	11	52/02*
12312	51	4,5,8,9,18,21,27,31,33, 42,43,52/02			N25,N27,N36,N43,N48, N49/02;N1/03	14500	27	52/02* N31/02*	15562		N41/02 N30/02
12313	48	5,9,14,18,21,27,31,33,43,	13264	103	5,21,36,49/02	14772	17	15/02	15880		N41/02
12314	30	46*,50/02	13207	30	1/03	14775	10	N31/02*	15954		N9/02 N47/02*
12316	28	11,26,27,37,39,42,45,46,	13270	59	2,3,5,9,17,19,33,34,40, 43/02:1/03	14776		N31/02* N31/02*	16003 16004	16	18/02* 9/02
12317	31	15*,26,37,50/02	13272	47	3,11,19,28,40/02	14782	24	21,22/02	16011	35	5,38/02
12318 12323	40 23	19,39,45/02 19,40/02	13274	24	3,5,17,19,27,45,52/02; 1/03	14785 14786	16 13	22/02 5*.24/02	16012 16013	21 28	38/02 17,22,29,52/02
12324	29	18,50/02	13275	27	2,5,17,19,27,45,52/02;	14800	9	19,23/02	16041	8	13/02*
12326 12327	96	12,17,18,27,28/02 1/03*	13276	21	19,27,52/02	14804	4	19/02	16042	7 8	39/02* 19*,27,37,49/02
12331 12332	29	4,15,22,43/02	13278	25	1/03	14812	3	19/02	16206	7	2/02 6/02
12333	32	46*,47/02	13283	18	11/02;1/03	14820	18	31*,35,38,39/02	16300	8	52/02
12334 12335	64	3,22,27,30,33,45/02;1/03 6/02*·1/03	13285	10 29	11/02 39* 40 50/02:1/03	14823 14824	30 25	1/03* 24/02	16363 16380	12	38/02* 13,17/02
12337	22	8,15,20,28,31,45/02	13288	40	2,9,11,15*,20,23,29,36,	14826	26	21/02	16382	10	13,17/02
12339 12341	43 25	5/02 22/02*	13290	34	43,50,51/02 2,10,20,36,40,43,50,	14829	5 29	21/02 18,23,39,51/02	16435 16440	5 13	27/02 37/02
12343 12345	18	37/02* 42/02*	12202	26	51/02	14832	34	52/02* 7.20.26/02	16441	7	
12343	29	25/02	13293	33	26*,29,43,51/02	14835	31	39/02	16480	10	38/02
12348 12350	33	25/02 39* 49/02	13296 13298	25 10	43/02 43 52/02	14836 14837	27 27	42/02* 26/02*	16521 16529	5 14	27/02 50/02
12352	29	9*,12,34/02	13301	20	9,25,33,51/02	14838	3	52/02*	16530	6	50/02
12354	39	9*,12,14,22,28,33,37, 45/02	13302	12	3*,8,9,20,25,41/02 48/02*	14839	12	7,21,24,37/02;1/03 4,18,23,39/02	16531	7 10	
12358 12362	19	46*,49/02;1/03	13305	28	8,25,40,41,49/02	14843	22	23,39,51/02	16568	12	39/02* 39/02
12363	39	2,3,14,18,28,44/02	13309	28	42/02*	14845	26	4,18/02	16576	3	42/02
12364 12365	33	20*,22,28,44,47,49,51/02	13312	20 19	5,21,36,52/02 21,25,41,49,52/02	14846 14847	11 30	18,23,24,39,40/02 24,40/02	16580 16590	11 10	39/02 38/02*
12366	27	3,14,51/02	13315	11	19*,49/02	14848	56	9*,23,24,31/02	16596	12	39/02*
12367 12368	23	18/02 42/02*	13318	18	38*,41,52/02 19/02*	14850	51 44	21*,23/02 9*,20,23,25,26,37/02	16597	8	16,43/02 43/02
12369 12370	25	31*,44/02	13324	13	5,41,52/02 5/02	14853	13	21*,23,24,25,26,31,37/02	16599	6	16,43/02 42/02
12371	22	28,47/02	13326	12	41,43/02	14860	35	8*,21,24/02	16604	11	22/02*
12372 12375	31	45*,47,48/02 22/02	13394	3	39/02* 13/02*	14862	28 30	26/02* 5* 10.24/02	16606 16645	11 18	37/02* 13/02*
12377	14	22,25,37/02	13398	3	19*,36/02	14864	26	24,37/02	16646	12	5/02*
12401 12402	8	31*,47/02 31*,33,47/02	14002	6	11,12,13,16,25,48,49/02	14867	25 26	6,32/02 9/02*	16662	28 6	7,13,22,25,29,42/02 3,22,29/02
13000	1	N8,N11,N12,N13,N21, N25,N48,N49/02	14008 14010	76 5	21/02 21,35/02	14871 14872	2	21/02 21/02	16663 16665	6 7	3,7,13,22,25,29,42/02 7,13,22,25,29,42/02
13003	45	2,8,11,12,13,19,21,23,23,	14018	0	10/02	148/3		35/02	10080	10	6/02
13006	30	36,37,42,48,49/02;1/03 39*,44,48,49,50/02;1/03	14024 14040		33,36,39/02 40/02	14880 14881	30 31	33/02 28*,33/02	16681 16682	10 14	37/02* 6/02
13009	30	42*,48,49/02;1/03	14083 14087		33/02	14883 14885	42 20	6,17,23/02 51/02	16700		21*,49,52/02
13200 13201	10	13*,25,37,48/02 N13,N25,N37,N48/02	14087		33/02 41/02*	14886	10	8/02	16701 16702	18 10	21*,52/02 8,38,52/02;1/03
13203 13204	12 12	37/02 13/02	14089 14090		41/02* 33/02	14901 14902	14 28	52/02* 24,25,31/02	16705 16707	19 10	5*,49/02 34,37/02
13205	36	9,12,37,42,45,48/02;1/03	14091	6	41/02*	14903	22	8,23,32/02	16708	25	37,49/02
13209 13211	23 13	14,37/02 9,21,23,47/02	14144 14151		21/02 37/02	14904 14905	25 29	5,17,31,32,46/02 31,35,37/02	16709 16711	22 2	15*,49/02 15/02*
13212	34	9,12,21,23,45,47,48/02 8,45/02	14180		21/02	14907	25	2*,13,17/02	16713	2	13*,49/02
13213 13214	27	34*,45,48/02	14185 14203		3/02 19/02	14908 14910	17 22	13/02 25,31/02	16741 16760		46/02 51/02
13215 13216	17	9,14,45,48/02;1/03 N12,N48/02	14204 14206		19/02 19/02	14916 14917	10 23	45/02* 17/02	16762 17003	9 4	26/02* 8,9,47,52/02
13217	14	14/02	14208	28	40/02	14918	26	25/02	17005	10	8,9,11,41,45,47,52/02
13218 13219	12	11,29,42,45,51/02 14/02	14221 14222	16	40,46/02 46/02	14919 14922	27 19	10,24/02 26*,51/02	17008 17300	12 30	8,13,43/02 52/02*
13221	53	2,4,15,29,44,51/02	14225 14226	17	38/02 40/02	14924	27 9	28*,32/02	17302		21*,51/02
13223 13224	36	2*,15,52/02 7*,44/02	14227	28	40/02	14926 14927	24	18,31,32,35,37/02 21*,31,32,35,37/02	17303 17316	20	15,37/02 28/02*
13226	5	2,4,5,44/02	14228	11	40/02	14928	20	31,37/02	17320	15	15/02

CHARTS AFFECTED BY NOTICE TO MARINERS **NM 2/02 THROUGH NM 1/03**

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.		Ed. No.	Notice to Mariners No.
17330		15/02	18427		35/02* 19/02*	18659 18660	14 1		21342	28	41,44/02
17360 17372		44/02;1/03 2/02	18428 18429	9 8	4,P44,48/02	18661	26	30,49/02 23,27,30/02	21384 21441	3 27	23/02 34,44/02
17379		15*,20/02	18430	7		18662	20		21489		
17381 17382		13/02* 44/02;1/03	18431 18432	5 4	30*,P44,48/02 5/02	18663 18666	4 1	23,27/02 9*,26/02	21500 21510	1	5/02 13/02
17383	1	31*,49/02	18433	4	5,15,P44,48/02	18680	30	15/02	21520	1	5/02
17384 17385		44/02 44,48/02	18434 18440	4 25	15,26,P44,48/02 4,6,7,9,12,15,17,22,33,	18685 18700	31 21	25/02 8,34,36,37/02	21521 21529	14 1	5/02 14/02
17400	16	14,15,36/02			39,P44,48,52/02	18703	24	13*,36,37/02	21540	36	5/02
17401 17402		1/03 46/02*	18441 18443	42 15	30*,32,39/02 7,8,17,39/02	18704 18720	12 31	37/02 8,23,35/02	21563 21601	3 4	45/02 14/02
17409	10	39/02*	18444	15	7,8,17,39/02	18721	11	8,35/02	21602	1	28/02
17412 17413		12/02 13,14,43,50/02	18445	29	4,6,7,8,12,15,17,22,28, 32,33,39/02	18722 18723	3	8/02 8/02	21605 22004		19/02 18,20,23,30,32,34,36,39,
17414	3	41/02	18446		4,6,8/02	18725	26	4,8,23,35/02		50	41,43,52/02
1741 <i>6</i> 17420		13/02 14,36,37,42,43,50/02;	18447 18448	26	4,11,27,52/02 12,15,17,33/02	18740	39	8,16,20,23,34,37,45, 50/02	22008	35	4,13,18,30,34,36,39,41, 43,44,48,52/02
17420	20	1/03	18449		15,17/02	18741	18	N25,N45,N50/02	22012	31	
17421 17422	1 8	14/02 52/02*	18452 18453	16 23	17/02 28,38/02	18744 18746	30 34	37/02 7*,20,23,34/02	22036 22050	28 4	18,47/02 19/02
17425	6	18/02*	18455	23	N17,N22,N39/02	18749		7*,10,16,18,20,23,25,27,	22051	18	
17426	13	37/02;1/03	18456		12/02	10751	42	40/02	22052	6	28,46/02
17427 17429		11,12,14,16/02 N38/02*	18457 18458		12,15/02 6,7,17,22,32,39/02	18751 18754	42 16	7*,10,16,20,25,27,40/02 36/02	22080 22082	3 4	20,32/02 4,17,19/02
17434	- 11	11/02	18459		N7,N17,N22,N32,	18758	6	35/02*	22083	5	19/02
17437 17438		14,16/02 10,12,14,16,50/02	18460	10	N39/02 15,28,40,P44,47,48,	18760	6	N8,N16,N23,N34,N35, N45,N50/02	22084 22090	4 2	42/02 30,32,43/02
17443	12	8,10/02			52/02	18761		N20/02	22100	3	20,32/02
17444 17445		10,12/02 12,16/02	18464 18465		9,32/02 26,P44,48,52/02	18762 18763	15 9	20/02 20/02	22101 22111	19 4	16,20,32,43/02 32/02
17460)	N12/02	18471	8	13*,32/02	18765	15	18*,25,45,50/02	22112	3	23,25,30,32,43/02
17471 17480		N15/02 8,15,43/02	18473 18474	6 7	4,6,8,12,22/02 45/02*	18766 18768	7 4	25,45,50/02 N25,N45,N50/02	22113 22114	8 5	23,25,30/02 16,32,42,43/02
17485	4	16/02	18476	4	6,7,12,17,22,32,39/02	18769	2	N20/02	22120	3	8,18,23,30,34,36,39,41,
17489 17491	19	8,43/02 8/02	18477 18480	5 28	4,12/02 28*,40,P44,45,47,48,	18772 18773	46 38	20,25,50/02 4,8,18,20,23,25,50/02	22121	9	43,52/02 6,8,17,23,30,34,36,44,
17495	2	8,43/02			52/02	18774	10	35/02*			52/02
17503 17506		11,43/02 N8/02	18484 18485		28,40/02 15,28,40,P44,48,52/02	18775 19002	2 9	N20/02 N23,N25,N37,N51/02	22124 22125	2 1	17,34,52/02 18,36/02
17513		N8,N11,N42,N43/02	18500	28	19*,22,32,39/02	19004	36	23,25,35,37,51/02	22126	1	36/02
17515 17517		8,11,12/02 4/02	18502 18504	84 64	30*,32,39,42,49/02 18,52/02	19007 19010		51/02 45*,51/02	22130 22138	2 2	44/02 8,18,41,44,48/02
17518	7	6,P44,48/02	18520	24	10,33,39/02	19013		25,51/02	22140	2	4.30.34.36.44/02
17519 17520		4/02 N4/02	18521 18523	69 53	34*,39,49/02 3,7,10,12,15,25,26,33/02	19320 19324	16 22		22142 22143	2	39,41,43/02 6,8,17,41,52/02
17521		N8/02 N8/02	18524	33	18*,26,28,31,33/02	19327	10	23/02	22145	2	N41/02
17525 17528		N8/02	18525 18526	33 55	4,7,11,14,15,28,31,33/02	19330 19339	9	6/02* N25 N25 N40 N51/02	22160	2	4,30,34,39,41,48,52/02 13*,30,39/02
17541		N8,N43/02 8,43/02	18527		4,7,11,15,16,28,31,33/02 16,31/02	19339	26	N25,N35,N49,N51/02 25,35,49,51/02	22170 22172	8	48/02*
17542		47/02	18528	10		19341	9	7/02*	22173	36	48/02*
17543 17545		9,11,13,41/02 9,43,47/02	18529 18531	20	52/02* 7*,11,26,31,34/02	19347 19350	17 11		22180 22181	2 16	30,34/02 17,27,39,41/02
17546	22	9,13,42,43,47/02	18532	20	7/02*	19351	9	25/02	22182	6	7,8,30,34/02
17549 17550		13,47/02 15,42,43,P44,45,47,48,	18541 18558	8 37	21/02* 19*,39/02	19357 19358	20	42*,49,51/02 28/02*	22183 22190	3 2	20/02 30/02
		52/02	18561	11	10,33,39/02	19360	1	N37,N51/02	22205	2	14,16/02
18000 18002		8,45/02 N8,N45/02	18580 18581	21 17		19362 19366	12 36	49/02 13*,31,49/02	22221 22250	20 2	20/02 42/02
18003		10,26,33,38,39,40,P44,	18583	38	4,7,31,33,42,49/02	19367	37	22,31,49/02	22259	4	20/02
18005	4	45,47,48,52/02 N6,N8,N20,N34/02	18584 18587	47 68	7,30,39,49/02 7,11,14,25,30,33,39,	19369 19379	5 1	22,31,49/02 N25,N51/02	22264 22275	2	20,42/02 20,42/02
18007		6,10,14,20,26,33,34,37,			42/02	19380	14	25,51/02	22282	17	19/02
18008	7	38,39,40,47,52/02 N6,N10,N14,N20,N26,	18588 18600	36 14	32,33,49/02 15*,33,37,38,40/02	19381 19383	8 17	25,49,51/02 49/02	22283 22290	3 4	N19/02 20/02
		N33,N34,N37,N38,N39,	18601	13	6/02	19385	7	20/02*	22293	15	20/02
18009	2	N40,N47,N52/02 N34/02	18602 18603	11 15	26,32,33/02 37,40/02	19387 21005	9 5	N25/02 45/02	22313 22314	2	44/02 44/02
18010	20	6,33,34,37,38,39,40/02	18620	23	35/02*	21008	62	39,42,43,50/02;1/03	22341	9	19,43/02
18020 18022		6,8,20,34,37,45/02 13*,23,34,37,45/02	18622 18623	52 11	26,28,49/02 34/02	21014 21017	72 50	42,50,52/02 23,41,50/02	22342 22343	9 1	19/02 N19,N43/02
18400		4,6,10,11,15,P44,48,	18626	15	37/02	21020	42	23,41/02	22344	5	N42/02
18401	12	52/02 5/02	18640 18643	24 16	13,15,24/02 24,49/02	21021 21023	3 41	45/02 5,34/02	22345 22347	11 5	42/02 N19/02
18402	22	4/02	18645	24	15,19,50/02	21026	47	5,13/02	22351	1	N43/02
18403 18405		4/02 43/02	18649	62	3,8,11,12,15,19,20,23,33, 36,38,41/02	21033 21036	46 7	14,20,32/02;1/03 1/03	22361 22371	2 5	N7/02 7/02
18406	5	5/02	18650	51	28*,33,38,41/02	21120	27	47,50,51,52/02	22373	1	N50/02
18407 18409		4,8/02 11/02	18651 18652	41 31	12/02 2*,8,11,18,19,20,23,26,	21121 21122	18 5	47/02 47/02	22375 22379	1	N19/02 N50/02
18414	. 9	8/02			27,30,33,38,41,49/02	21125	13	51,52/02	22381		N19,N43/02
18415 1841 <i>6</i>		5,13,42/02 10,P44,48/02	18653 18654	9 42	3,8,11,15,19,36,38,41/02 28*,38,49/02	21126 21140	1 1	50/02 45,50/02	22395 22403	2 1	4,19,42/02 N45/02
18419	11	47/02	18655	58	10*,19,49/02	21141	23	48/02	22404	15	46/02
18420 18421		13/02 20*,26,P44,48/02	18656 18657	52 18	19,23,26,27,30/02 19,26,27,30/02	21160 21161	1 19	45/02 43,48/02	22406 22409	1 4	N1/03 N45/02
18423		1/03*	18658	29	23,26,27/02	21182	34	39/02	22410		4,7,11,43,44,46/02

CHARTS AFFECTED BY NOTICE TO MARINERS NM 2/02 THROUGH NM 1/03

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
22412 22413 22418 22421	2 2 4	Notice to Mariners No. 7/02 N45/02 24,36,44,46/02 N4,N7,N11,N43,N44, N46/02 7,11,44,46/02 N4,N43,N44,N46, N50/02	24294 24311 24312 24320	22 4 4 4	Mariners No. 6,36/02 27/02 27/02 27/02 27,28,34,43/02 28,34/02 31,51/02 51/02 34/02 35/02 14,21,26,35,36,44,48/02 14,21,26,35,36,44,48/02 21,44/02 6,8/02 39/02 39/02 39/02 39/02 39/02 39/02 39/02 15,17,39,47/02 15,47/02 24,39/02 21,34/02 24,39/02 21,44/02 24,39/02 21,44/02 24,39/02 21,44/02 24,39/02 21,41/02 21,41/02 21,41/02 21,41/02 21,41/02 21,41/02 22,439/02 24,49/02 24,49/02 24,49/02 24,49/02 24,49/02 24,49/02 24,49/02 24,49/02 21,41,45,46/02 11,41,45,46/02 17,45,50/02 17,18,19,41,45,46,50/02 25,29,44,46/02 17,18,19,41,45,46,50/02 25,29,44,46/02 17,18,19,41,45,46,50/02 25,29,44,46/02	25683 25687 25700 25710		12,15,35/02 8,12/02 8,12/02	29121 29122 35000 35008	26 21	32/02 32/02 11,13,23,24,47,48/02 45,48,50/02
22425 22427	2 1	N46/02 7,11,44,46/02 N4,N43,N44,N46, N50/02	24322 24350 24355 24370	6 2 2	28,34/02 31,51/02 51/02 34/02	25720 25723 25724 25800	3 40 3 3	8,12,33/02 8/02 8/02 24,36/02	35009 35011 35016 35031	2 17	15,40,41,45/02 11,48/02;1/03 12,29/02 12,22/02
22429 22433 22436	3 2	N24,N46/02 39,47/02 39/02	24375 24380 24388 24404	2 2 2	34/02 35/02 35/02	25803 25841 25842	16 9 10	12/02 8,10,24,36/02 8/02	35032 35036 35040	16 21 18	12/02 13,17,19,24,30,36/02 21,45/02
22471 22481 22482 23000	16	18,44/02 43,44/02 44,50/02 18/02	24404 24405 24406 24408	8 10 30 21	14,21,26,35,44,48/02 14,26,35,36,44,48/02 20,26/02 4,14,36,44,48/02	25845 25848 25849 26050	9 25 13 1	8/02 8/02 8,42/02 13,34/02	35041 35042 35044 35047	8 9 9 5	21,35/02 21,27,44/02 38/02 13,35/02
23010 23023 23030	4 4 6	27,38/02 27/02 27,38/02	24410 24423 24430	2 2 5	21,44/02 6,8/02 39/02	26060 26081 26083	1 8 14	49/02 46/02 29/02	35060 35080 35084	14 16 15	18,22,40,41/02 18,22,40/02 50/02
23115 23121 23122 23123	3 7 8 3	27/02 30/02 23,30,33/02 30/02	24431 24434 24444 24450	14 4 2 3	39/02 39/02 6/02 6/02	26127 26128 26129 26140	21 50 11 2	5,49/02 4,26/02 8/02	35086 35088 35099 35100	5 2 3 14	31/02 50/02 41/02 40,45/02
23124 23125 23126 23127	4 6	N30/02 30/02 N24/02* N24/02*	24452 24460 24462 24463	7 4 5	16,26/02 15,17,39,47/02 15,47/02 24,39/02	26142 26143 26145 26147	10 10 10 31	8/02 8/02	35101 35103 35120 35130	5	41/02 41/02 40,45,47/02 48,51/02
23128 23129 23131	4 2 7	N24/02* N24/02* 26,31/02	24463 24465 24469 24470	6 1 4	15,23,33,47/02 20,46,47/02 28,39,47/02	26148 26210 26229	4 2 11	8,13/02 24,36/02 17/02	35136 35141 35143	2 11 7	48,51/02 34/02 34/02
23141 23150 23152 23153	7 10 3 8	34/02 20,37,52/02 37/02 20,31/02	24471 24480 24482	1 2	28,47/02 14,17,25,27,41,44,45, 49/02 24,49/02	26230 26240 26245 26259	7 16	17/02 23/02 51/02 51/02 12,24/02	35150 35155 35159 35163	3 3 3 7	48/02 11/02 25/02 25,44/02
24000 24004 24008 24012	39 36 42 40	27,29/02 5,7,29,30/02 7/02 6/02	24483 24484 24490 24491	2 3 3	20,24,49/02 24,49/02 24,31/02 31/02	26260 26280 26282 26284		8,23/02 8/02	35166 35167 35169 35200	4 3 2 7	35/02 35/02 35/02 48,51/02
24016 24020 24028 24050	53 47 6 11	30,39/02 27/02 23,48/02 27,31,34,38,49/02	24492 24501 24502 24504	20 3 6	31,46/02 14,17,27/02 46/02	26290 26303 26305 26306	1 4 4 14	8/02 13/02** 13/02**	35210 35230 35236 35246	3	29/02 29/02 7,38,50/02 38,43/02
24052 24053 24055	15 16 6	31,37,38/02 24/02 37,49/02	24508 24509 24510	2 2 2 2 3	18,19,41,45,46/02 17,45,50/02 17,18,19,41,45,46,50/02	26308 26309 26320	4 26	8,15/02 8,17/02 5,8,12,15,24,27,28,29,	35247 35255 35270	4 3 2	50/02 50/02 38,46/02
24057 24058 24060 24080	4 2 2 5	31,38,49/02 31,32,37,38/02 34/02 29/02	24512 24513 24517 25001	2 7	18,19,46,49/02 9,12,17,19/02	26323 26327 26328	4 2 2	35/02 1/03 N41/02* 15/02	35276 35277 35279 35295	3 3 3 3	46/02 38,46/02 38/02 27/02
24091 24092 24100 24101	5	26/02 26/02 27,29/02 37,41/02	25017 25018 25400 25480	9 1	9,12/02 9,12/02 23,26,35,48/02 20,42,46/02	27005 27041 27080 27081	4 4 4 6		35298 35299 35300 35301	17	27/02 8,12/02 12/02 12/02
24102 24110 24130	3 3 14	37,41/02 27,29/02 24,29/02	25481 25484 25485	25 23 45	4,26/02 11/02* 23,26/02 23,26/02	27082 27100 27120	6 2 4	9,18,49,51/02 31/02 41,43,44/02	35303 35308 35310	7 5 2	40/02 8,12/02 12,22/02
24132 24140 24149 24150	18 1 27	10/02 4,32/02 32/02 6,27,29,30,32/02	25487 25524 25525 25526	43 17 2	23,26/02 11,33/02;1/03 1/03 11,19,33/02	27183 27186 28004	21 8 8 1	9,49/02 5/02;1/03 5/02;1/03 5,20,23,45/02	35330 35350 35390 35400	11	4,12,22,38,41/02 7,38,41/02 12/02 8,12,30/02
24151 24152 24153 24154	4 2 6 12		25527 25528 25550 25563	31 5 2 50	11,33/02 21,42/02 17,19,24/02 17,33/02	28050 28110 28162 28164	3 2 29 17	13,28,34/02 15/02* 28/02 28/02	35402 35405 35420 35421	3 2 13 14	38/02 8/02 12,24,30/02 31/02
24156 24159 24160 24161	2 1 21 11	22/02 27/02 6,27,28/02 11,27,42/02	25565 25566 25567 25570	7 27 16 3	33/02 17/02 19/02 19,31/02	28170 28190 28196 28197	1 2 4 4	4/02 41,43,45,46/02 41,43,45/02 45/02	35423 35424 36005	6 3 2	31/02 30/02 6,7,12,13,14,15,17,24,27, 28,34,36,38,45,46/02
24162 24164 24200	9 6 14 7	4,11,22,27,42/02 10,27/02 6/02	25575 25600 25601	4 47	4,31/02 24/02 10,17,19,20/02	28202 28210 28220 28221	22 2 2	41,44/02 33,35,39,41/02 35,39/02 33,37,39/02	36010 36015	2	8,12,16,19,20,22,24, 38/02 13,17,24,27,36,46/02
24211 24220 24222 24223	14 3 33	24/02 27,28/02 27/02 18/02	25607 25608 25609 25613	21 5 2	24,39/02 10,17/02 30/02 5,14,30/02	28223 28260 28263	18 4 30 3	35,39/02 35,37/02 35,37/02	36040 36046 36060 36061	16 5 17 5	12,19,30/02;1/03 38/02 8,12,16,19,31,38/02 46/02
24230 24233 24234 24240	20 15 3 5	10,18,30/02 36,43/02 30/02 30,39/02	25640 25641 25644 25645	12 17	28/02* 5*,30/02 42/02 15/02*	28264 28265 28281 28282	3 32 2	35,37/02 37/02 36/02 35/02	36062 36081 36106 36117	7 6	40*,46/02 12/02 18,47/02 18/02
24250 24251 24252 24260	5 23 5 5	30,39/02 24,34,43/02 30,39,43/02 34/02	25646 25649 25650 25663	7 18 33 27		28300 28302 28310 28320	1 16 2 6	23,39,50/02 31,33,39,40/02 23,31,33,35,39/02 33/02	36120 36122 36123 36137	9 12 25 4	16,19,20,22,31,46/02 16,19,21/02 16,19,21,46/02 38/02
24270 24290 24291 24292	3 4 4	24,27/02 36,43/02 36/02 36/02	25668 25670 25673 25677	41 15 19	15*,16,48/02 26,38,48,49/02 28,42/02 4,21,52/02	28321 28323 28325 28330	36 2 2 2	29/02 27,29/02 27,29/02 27/02	36138 36140 36142 36143	3 12 6 4	39/02 13,21,22,24,36,41/02 24/02 18,34/02
24293		6,32,36/02	25681		4/02	29015		2,22/02		-	** **

CHARTS AFFECTED BY NOTICE TO MARINERS NM 2/02 THROUGH NM 1/03

Note: N indicates Not For Sale; P indicates Preliminary; T indicates Temporary;

* indicates New Edition/New Chart; ** indicates Chart Canceled

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
3616		13,20,24,34,44,45,47, 50/02	37164 37165	4 2	15/02 5,8,9,15,17,18,20,21,34,	38690 41060	2 3	10/02 34/02	44069	16	5,9,11,13,16,18,20,21,24, 29,31/02
3616 3616		13,20,35,45,47,50/02 20,31,34,35,38,44,45,47,	37166	2	36/02 8,11,12,15,16,17,26/02	42620 42740	5	12/02 2,12,34,41/02	44070 44071	7 4	9/02 9/02
3616	4 7	50/02 34,38,44,46/02	37170 37180	11 20	38/02 21,38/02	42742 42760	3 5	2/02 2,12/02	44072 44073	4 2	5,21/02 5,21/02
3616		17,18,20,22,24,28,36, 44/02	37182 37183		35,47,48/02 48,51/02	42762 43030	3	N12/02 11,25,28/02	44075	4	5,9,11,16,17,21,29,31, 42/02
3616		24,40/02	37184	8	48/02	43040	6	2/02	44076	3	18,25/02
3617: 3618		40/02 13,17,20,21,22,36,40,	37200 37202	15 2	18/02 13,18/02	43059 43060	3	44/02 44/02	44081	9	8,15,16,17,20,24,25, 39/02
3618		50/02 17,20,21,22,36,40,50/02	37205 37221	2 13	39/02 5,8,9,11,12,15,16,17,18,	43079 43082	2 5	41/02 41/02	44082	11	6,11,15,16,17,18,21,24, 25/02
3618 3700		13,20,36,40/02 11,23,28,47,48/02			20,21,24,25,27,28,34, 36/02	43101 43102	3 4	46/02 46/02	44083 44084	8 1	10,15,21/02 6/02
3700: 3701		17,18,23,41,45,47/02 15,16,17,18,23,26,41,45,	37222 37223	13 14	15,27,28/02 26,42/02	43104 43106	4 6	46/02 44/02	44085 44100	2 7	21,25/02 11,13,15,16,17,18,24,25,
3702		47/02 38,51/02;1/03	37224 37226	11 17	15/02	43140 43141	4 5	17,41,48,52/02 52/02	44105	2	26,44/02 49/02
3703: 3703:	2 2	9,12/02;1/03 47/02	37228		25,28,30,39/02 5,8,13,21,24,27/02	43142 43144	4	52/02 17/02	44120	7	6,11,15,16,17,18,21,26, 27,28,29,31/02
3704	1 15	17,20,27,50/02	37229	15	15,16,17/02	43145	4	17/02	44140	8	4,6,16,26,27,28,29,31,
3704: 3704:	3 17	17,41,45/02 13,17,20,43/02	37230 37231	14 18	9,12,15,20,21,25,28,	43146 43150	2 2		44160	7	50/02;1/03 46/02;1/03
3704 3704	5 11	14,45/02 45/02	37232	12	30/02 12,15,16,21/02	43160 43161	6 2	17,41,44/02	44161 44162	2	29,50/02;1/03 50/02;1/03
3704 3704		21,31,43/02 14/02	37234 37235		9,12,15,20/02 15/02	43163 43164	3	44/02 17,48/02	44163 44164	1 1	48/02 46,48/02;1/03
37050 37060) 9	18,26,42,46/02 13,17,21,31,46,50/02	37241 37242	17	13,16,17,26/02 13,15,20/02	43182 43223	4 4	47,52/02 41/02	44165 44178	1 2	46/02;1/03 21/02
3706 3706	1 15	36,38/02 7,16,21,28,36,50/02	37244 37246	11	8,11,16,17,26/02 13,15/02	43225 43240	4	17,52/02 50,51/02	44180	6	18,20,24,29,34,45,46/02; 1/03
3706	4 8	17/02*	37248	18	12,39/02	43242	4	52/02	44182	4	21,48,49/02;1/03
3706: 3707:	5 3	19/02* 7,21,31/02	37258 37261		15,28/02;1/03	43243 43263	4	50,51/02 44/02	44183 44184	6	48/02;1/03 21,45,49/02
37079 3708		22/02 14,17,24,27,30,33,34,38,	37262 37264	3	1/03 30/02;1/03	43265 43270	2 2	44,52/02 44/02	44185 44186	7 2	45,49/02;1/03 21,45,46,48/02;1/03
		40,42,44,45,46,51/02; 1/03	37265 37281	3 15	18,24/02;1/03 30/02;1/03	43280 43281	5 6	44/02 20/02*	44187 44192	2	21/02 21,29,46,48/02;1/03
3708 3708		18,20,21,28,38,43,50/02 13,28,44,50/02	37320 37325	16 8	12,18,26,27,28,38,44/02 14,18,34,39,47/02	43284 43285	4 5	16,51/02 15,16,44/02	44193 44200	1 9	26/02;1/03 20,24,29,34,52/02
3708 3708	3 8	20,22/02 20,22,38,40,43/02	37326 37328	2 2	11,12,34,47,51/02 12,18,42,44/02	43300 43301	5	15,44,47,50/02	44203 44204	1	20,24,33,48/02
3708 3708	5 8	38,40/02 38,50/02	37330	2	22,24,26,30,32,34,38,40, 46/02	43302 43303	4 4	44,47,50/02 41,47,50,51/02	44205 44206	2	48,52/02 46/02
3708	7 7	38,40/02	37342		17,32/02	43304	2	44,47,50/02	44220	5	46/02
3708 3709	8 (21,28/02 7,14,27,32,45,51/02;1/03	37343 37344	11	11,45/02 17,32,34/02	43321 43323	6	30,41,47/02 30/02	44224 44240	1 8	49/02 49,50/02
3709:		13,14,15,17,18,24,28, 32/02;1/03	37360		15,17,27,28,30,32,34, 43/02	43324 43341	4 7	30/02 41/02	44243 44260	2 7	25/02 29/02
3710 3710	3 9	6,15,18,27/02 12,13,15,27,29/02	37362	6	12,17,31,43,48,51/02; 1/03	43345 43360		1/03 17,28/02	44280 44281	9	29,34,49,50/02 49/02
3710- 3710-		12,13,41/02 12,13/02	37363 37367	8	11,48/02 38,49/02	43363 43364	5 5	45/02 45,46/02	44282 44283	1 2	49,50/02 50/02
37110		6,12,13,15,17,18,19,24, 27,28,29,47/02	37380		12,15,17,34,40,42,43,44, 48,51/02	43371 43372	13 4		44284 44310	2 5	41/02 20,29,41,42/02
3711: 3711:		47/02 6,12,13,15,17,18,19,27,	37400	10	9,15,28,34,38,40,41,44, 46/02	43373 43374	8	45/02 22/02	44313 44319	1 2	27,41,47/02
		28,29,33,47/02	37401	9	9,28,32,44/02	43375	7	46/02	44320	4	13,23,29/02
37119 37120		43/02 12,13,15,19,24,27,29,39,	37402 37403	23	28,32,41,42,44,50/02 12,24/02	43384 43385	1		44321 44340	11	13,19,22,23,29,32,40/02 13,16,20,21,37/02
3712		42,49,51/02 12,13,15,24,27,29,31/02	37420 37441	1	9,12,34,43/02;1/03 9,12,15/02	44001 44015	8	48,49/02;1/03 28,31,48,49/02	44341 44342	7 8	13,25,37,41/02 6,13,37,41/02
3712: 3712:	3 9	19,49/02	37443 37445	2	9,12/02 12,48/02;1/03	44030 44036	7 5	20,46/02 28/02	44360	9	8,16,20,21,34,37,41, 42/02
3712: 3712:		15,19,24,42,49/02 15,41/02	37446 37461	2	1/03 51/02	44038 44040	5 23	18/02 28,44/02	44361 44366	6 1	21,27/02 34,41/02
3712 3712	7 11	49/02 39,42,49/02	37463 37481	6 7	1/03 47,48/02	44041 44042	7 7	48/02;1/03 21,44,45,49/02	44367	2	15,16,18,20,22,25,26,29, 35,37,40/02
3713: 3713:	3 4	44/02 38/02	37501 37505	3 2	46,47/02 46/02	44043 44046	8 10	44/02;1/03 18/02	44400 44401	4 7	48/02 13/02*
3713	6	38,46,50,51/02	37506	4	45,46,47,51/02	44047	22	8,26,44/02	44420	6	5,36,49/02
3713° 3713°	8	46,48/02 18,23/02;1/03	38030 38040	1 5	9,10,20,21/02 12/02	44048 44049	11	8/02 18,44,46,50/02	44430 44444	6	4,6,16,17,28/02 31/02
3714		15,17,19,21,22,24,27,29, 31,35,49,51/02	38041 38044	1	12/02 N12/02	44050 44051	21 1	8,18/02 44,48,50/02;1/03	44461 44462	10 4	4,6,8,12,16,17,19,28/02 4,6,8,19/02
3714	1 29	20,21,23,36,40,48,51/02; 1/03	38100 38103	4	12/02 N12/02	44057 44061	5 21	8,13,21,25/02 8,18,21/02	44463 44465	9	4/02 4,6,8,12,16,17,19,28/02
3714: 3714		46,50/02 13,21,35,36,40/02;1/03	38105 38460	7	N12/02 18/02	44062 44063	8	8/02 13,21/02	44481 51002	2 7	6,26,28,31/02 13/02*
3714 3714	8 13	17,21,35,38/02 44/02	38463 38480		N18/02 18/02	44064 44065	19 7	8/02	51007 51013	22 4	38/02 38/02
3715 3716	8 (13,16,21,22,31/02 13,18,21,22,31,34,43/02;	38580	8 2	12/02 4,17,21/02	44065		42/02 16,20,27,39/02	51013 51017 51022	31	37/02 37/02 37/02
		1/03	38603 38610	1	20/02	44067	22	5,8,11,16,21,25,29/02	51061	11 14	1/03
3716 3716		11,12,15,16,17,26/02 11,13/02	38670 38683	2	9/02 9/02	44068	11	11,13,17,18,20,24,26, 44/02	51064 51100	2 7	52/02;1/03 1/03
					т.	4.5			•		

CHARTS AFFECTED BY NOTICE TO MARINERS NM 2/02 THROUGH NM 1/03

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
51103 51104		29*,33,45/02 29*,33,45/02	53107 53110		35/02 29,40/02	54226 54227	2 2	7,50/02 7,50/02	55084 55085	7 9	39/02 13/02
51143	4	14/02*	53111	3	31,44/02*	54240	11	8/02**	55100	8	29,36,37/02
51144 51145		14*,52/02;1/03 42/02	53120	14	13,18,20,21,27,28,39, 42/02	54260 54279	3 4	8/02** 50/02*	55102 55103	3 2	24/02 9,12,24,29,48/02;1/03
51146 51150		42,52/02 50,51/02;1/03	53122 53125		20,29,40/02 46,51/02	54280 54281	10 6	11,14,15,20/02 20/02	55104 55105	2 7	9,48/02 6,9,12,18,29,36,41,42/02
51154	3	50,51/02	53130	1	27,42,47/02	54282	1	51/02	55110	2	4,7,23,24,29,37/02
51155 51159		50,51/02;1/03 47/02	53133 53135		6*,41,46/02 20,51/02	54283 54284	5 1	8,19,20,52/02 51/02	55120 55128	2 2	36/02 4,5,6,9,26,33,36,38/02;
51160	20	48,50,51/02;1/03	53141	5	20,24,34,51,52/02	54286	4	14,19/02			1/03
51164 51165		38,45,46,50/02 25,45,50/02	53147 53149		36,39,42,51/02 31/02	54287 54288	7 5	7,9/02 9/02;1/03	55129 55130	7	6,9,33,36,37/02 13,27,45/02
51166	3	N25,N45/02	53160	14	20,51/02	54289	8	7,9,19/02;1/03	55131	1	27,36,45/02
51167 51168		45,50/02 45,46,50/02	53161 53162	8 7	51/02 50/02*	54300 54302	12 1	8,11,13,14,31/02 8,11,13,14,31/02	55139 55140	5 2	41/02 1/03
51220 51222		33/02 51/02	53164 53165		20,37,51/02 39/02	54303 54314	4 2	8/02 13/02	55150 55160	2 2	4,6,7,24,28,29,37/02 6,18,24,28,29,42/02
51225	3	27/02	53180	10	2,33,34,43,51/02;1/03	54318	3	5,19/02;1/03	55161	1	7,29/02
51240 51260		33/02 37,50/02	53181 53182		2,34/02;1/03 36/02	54320 54322	4 7	7,13,20,48/02;1/03 5,13,19,20/02;1/03	55170 55175	2	9,12,18,29,31,36,41/02 24,28/02
51263	23	49/02	53183	13	19*,35/02	54324	8	19/02	55180	2	9,33/02;1/03
51300 51320		27/02 12/02	53184 53200		32,35/02;1/03 2,3,33,36,43/02	54327 54329	4 4	20,31/02 5/02	55200 56031	2	12,27/02 1/03
51341		48/02	53201	6	51/02	54330	2	5/02	56042	6	22/02
51342 51380		1/03 47/02	53203 53204	10	3/02 3,44/02	54333 54334	3	5/02 7/02	56043 56044	6 3	22/02 22,38/02
51559 52039		41/02 50/02;1/03	53206 53220		17/02 2,36,43,51/02	54337 54339	3 8	19,31/02 7,17,31/02	56060 56063	8	33/02 2,14,21/02
52040	17	43,50/02	53223	5	29/02	54340	8	19,48,51/02	56064	6	14,38/02
52043 52045		46/02 36/02	53226 53242		15,51/02 2,52/02;1/03	54343 54344		14,19,48/02 14,19,48/02	56065 56067	3	33,38/02 48/02*
52046	21	50/02	53244	2	2/02:1/03	54346	8	14,19/02	56081	19	41/02
52051 52052		43/02 43/02	53262 53263		22,42/02 37/02	54347 54350	4	51/02 51/02	56083 56100		7,31/02 41,49,50/02;1/03
52060 52061		43,50,51/02 45,48,51/02	53265 53266		19,35,41,46,52/02 1/03	54351 54352	7	52/02 52/02;1/03	56101 56102	6 23	33/02;1/03 1/03
52066	3	50/02	53268	4	22,42/02	54360	12	15,19,20,52/02	56103	6	18,30/02;1/03
52080 52082		50,51/02 45,46,48/02	53269 53279		19/02 9/02	54362 54363	3	52/02 15,19,20/02	56104 56120	2 12	41,49,50/02 1/03
52083	2	45,46,51/02;1/03	53281	4	31,40,52/02	54364	2	52/02	56191	2	18/02
52084 52085		45/02 50,51/02	53282 53283	8 4	40/02 33,52/02	54365 54366	6 3	15,19,36/02 15/02	56195 57063	3 5	22/02* 40,41/02
52086 52087		45,50,51/02;1/03 51/02	53284 53285	4 4	33,40/02 35/02	54367 54368	3 4	15/02 20/02	57064 57101	3 18	41/02 41/02
52088	2	45/02	53287	6	20,27,35,42/02;1/03	54369	4	13,15,52/02	57120	13	43/02
52092 52120		46,51/02 32,51/02	53290 53301	1 4	35/02 27/02	54372 54380	2 6	20/02 5,19,26,42/02	57140 57141		43/02 43/02
52121 52122		45,46/02;1/03 45/02	53302 53303		51/02 49,51/02	54382 54386	9	26/02 7,42/02	57142 57160		43/02 43/02
52124	1	51/02	53306	2	21,39/02	54387	7	6,23,42/02	57161	4	31/02
52125 52140		45,46/02 48,50/02	53311 54040	3	39/02 37/02	54389 54400	8	6,43,52/02 5,7,20,32,43/02	57162 57164	7 2	43/02 43/02
52141	. 5	48/02	54041	7	18 35/02	54402	4	52/02	57165	1	43/02
52144 52170	3	50/02 3/02	54043 54060	5	15,17,18,29/02 18,37/02	54403 54404	4	6,22,43,52/02 19/02	57170 57381	1 12	43/02 52/02
52172 52180	2	3,11,40/02;1/03 2,21,24,42,43,51/02;1/03	54061 54063	11	52/02 1/03	54407 54409	4 2	32,43/02 23,32/02	61015 61018		17/02 18,24/02
52186	3	3/02	54080	5	8/02**	54413	3	31/02	61020	2	17,28/02
52262 53011	•	7/02 51/02	54081 54083	3 4	13/02 19/02	54416 54418	5 4	7/02 32,43/02	61021 61036	3 8	18/02 8,27/02
53031		12,13,17,18,19,21,22,27,	54085	2	18,19,40/02	54421	6	6,7,28,47/02	61110	3	12,28/02
53060	14	28,30,39,48/02 12,14,15,17,18,19,21,22,	54090 54095		46/02* 46/02*	54422 54423	4 5	19/02* 48/02*	61111 61112	12 10	12/02 14,17/02
53061	10	27,28,30,32,51/02 14,19,28,30,44,47/02	54100 54105		8/02** 46/02*	54430 54440	1 4	26,28,37,43/02 7,30,41/02	61120 61130	4	12,28/02 12,28/02
53062	13	1/03	54115	3	46/02*	54441	6	30,42/02	61140	5	12,27/02
53063 53064		14,19,28,44,47/02 33/02	54120	5	15,16,17,18,19,20,37,39, 41/02	54463 54464	5 5	14/02 7/02	61141 61142	6 6	38/02 38/02
53065	2	33/02	54125 54140		46/02* 15,16,17,18,41/02	54480	8	22,30,36,41/02	61150	4	12/02
53066 53081	. 8	12,33/02 15,21,30/02	54151	1	7,14,15/02	54481 55001	4	22,30,36/02 6,18,29,36,37,42/02	61160 61170	3 5	12/02 13,27/02
53082 53083		40/02 18,19/02	54160 54161	14 12	8/02** 16,17,19/02	55040	4	13,15,18,23,27,28,31,32, 39,41/02	61171 61172	10 6	13/02 13/02
53084	- 6	17,18,24,51/02	54165	2	33,37/02	55041	7	15,22,32/02	61180	4	20,27/02
53085 53086		17,24,51/02 20,46,48/02	54167 54168	2	17,19/02 37/02	55042 55043	1 2	18,21,27,28,42/02 21,23,27,28,37,39,42/02	61182 61190	2 4	13/02 39,41/02
53087	9	48/02	54169 54180	3	8,16,37/02	55044	5 2	22,23,41,43/02	61191	8	12,13/02
53088 53090	1	33/02 41/02	54195	2	7,8,10,19,41,43,50/02 11/02	55045 55046	4	18,21,23,41/02 4,21,22,23,26,27,30,31,	61200 61210	6	17,21/02 17/02
53093 53100		20/02 13,18,19,21,24,28,33,39,	54200 54201	4 6	7,8,10,11,13,21/02 13,21/02	55047	8	37,38,39,41,48/02 22,23,26,27/02	61220 61240	5 7	17/02 18/02
		42,51/02	54220	5	7,10,13/02	55048	12	6,23,27,32,36,37,39,41,	61250	4	18/02
53101 53104	2	33/02 20,35,42/02	54222 54223	2	21,43/02 13,21/02	55049	6	48/02 22,27,30,41,43/02	61310 61311	2 5	33/02 17,33/02
53105 53106		37/02 19*,20,24/02	54224 54225	2 2	13,21/02 21/02	55060 55064	7	19,20,36,37/02 4,23,37,48/02	61312 61400	3 2	17,33/02 27/02
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	, -, · - -	1	_	-	1	-	, -,,		_	-

CHARTS AFFECTED BY NOTICE TO MARINERS **NM 2/02 THROUGH NM 1/03**

Chart Ed. No. No.	Notice to Mariners No.		Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
No. No. 61410 2 61420 2 61430 2 61433 1 61434 2 61440 2 61470 2 61500 2 61510 2 61520 2 61538 1 61540 2 61541 8 61550 2 61560 2 61581 5 61582 4 61591 4 61610 7 61611 1 61620 3 62001 4 62024 13 62032 15 62033 2 62046 2 62050 6 62090 7 62033 2 62046 2 62050 6 62090 7 62093 <td>Mariners No. 14/02 14/02 14/02 14/02 14/02 14/02 14/02 14/02 14/02 15/02 14/18/02 14/18/02 14/18/02 14/18/02 14/18/02 14/18/02 13/16/18/18/02 13/16/18/18/02 13/16/18/18/02 13/16/18/18/02 13/16/18/18/18/18/02 13/16/18/18/18/18/18/18/18/18/18/18/18/18/18/</td> <td></td> <td>No. 6 5 9 8 15 12 9 9 4 4 7 7 3 7 7 10 2 2 4 4 7 7 3 7 7 1 5 5 4 2 1 1 4 4 2 2 2 2 5 3 3 6 3 3 2 3 3 4 4 11 1 15 2</td> <td>Mariners No. 33/02 3337,39/02 17,27,39,43/02 26*,27,37/02 4,25,31,34/02 15,30,31,34,45/02;1/03 12*,40,46,52/02 32,46/02 1/03 5,15,17,20,49/02 16,36/02 2,23,3/02 15/02 2,21,23/02 25,33/02 17,27,39,43/02 27/02 2,6,17,20,21,24,36,49/02 6,24,31,33/02 15*,31,49,50/02 13,15,18,23,30,31,33,37, 43/02 2,4,12,16,18,25,29,31,32, 33,43,50,52/02 12*,23,52,77,31/02 15*,25,27,31/02 15*,25,27,31,49,50/02 6,23,31,33,34/02 N6,N23,N31,N33, N34/02 14,26,45/02 14,26,45/02 14,26,45/02 17,31,51,17,20,30,31, 37,43,49/02 N5,N6,N7,N13,N15, N17,N20,N30,N31,N37, N43,N49/02 7,31,33,43/02 17*,18,21,23,25,26,29, 31,32,34,40,45,48,50, 52/02 N7,N31,N33,N43/02 17*,18,21,23,25,26,29, 31,32,34,40,45,48,50, 52/02 N7,N31,N33,N43/02 17*,18,21,23,25,26,29, 31,33,43/04 N,N31,N33,N43/02 17*,18,21,23,25,26,31,32, 33,34,36,40,45,48,50, N52/02 7,13,30,43/02 2,21,23,25,26,31,32, 33,34,36,40,45,48,702 2,21,23,25,29,52/02 17*,21,23,25,26,31,32, 33,34,36,40,45,48/02 2,21,23,25,29,36,40,46,48/02 2,21,23,25,29,36,40,46,48/02 2,21,23,25,29,36,40,46,48/02 2,27,28,28/02 5,12,27,28,28/02 5,12,27,28,28/02 5,12,27,28,28/02 5,12,25,28,32/02 5,18,28,29/02 5,17,29/02 18/02 20,27,28,29/02</td> <td></td> <td>No. 15 6 8 8 7 9 9 8 6 2 2 1 1 5 5 3 3 10 0 9 9 13 1 1 5 5 2 2 2 2 1 1 5 5 3 3 4 4 6 6 29 9 13 3 10 0 4 4 18 8 2 2 11 1 10 5 5 2 2 2 2 2 8 8 3 10 10 0 2 3 7 7 3 2 2</td> <td>Mariners No. 31/02 14*.29,40/02 19,52/02 19,33/02 30/02 30/02 30/02 30/02 27,31,39/02 45/02 7,53,34/02 8,39/02 7,15,19,20,22,24,25,34,38,45,49/02 7,15,19,20,22,24,25,34,38,45,49/02 7,15,23,37,38,49/02 91,11,35,44/02 27,34,42/02 34/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 25,8,13/02 45/02 15/02 16/02 1/03 38,946/02;1/03 28,10,33,37/02 32/02 58,13/02 44/02 38/02 18,38/02 17/02 23,38/02 17/02 23,38/02 438/02 17/02 23,38/02 44/02</td> <td></td> <td>No. 8 10 10 8 7 8 8 3 2 2 8 8 4 4 2 2 7 7 2 2 2 2 3 3 9 4 4 3 3 10 2 2 2 2 2 6 8 8 9 9 4 4 4 2 2 8 8 3 5 5 10 4 4 3 3 9 4 4 3 4 4 4 2 5 5 7 7 4 4 7 4 4 6 6 3 4 4 5 6 6</td> <td></td>	Mariners No. 14/02 14/02 14/02 14/02 14/02 14/02 14/02 14/02 14/02 15/02 14/18/02 14/18/02 14/18/02 14/18/02 14/18/02 14/18/02 13/16/18/18/02 13/16/18/18/02 13/16/18/18/02 13/16/18/18/02 13/16/18/18/18/18/02 13/16/18/18/18/18/18/18/18/18/18/18/18/18/18/		No. 6 5 9 8 15 12 9 9 4 4 7 7 3 7 7 10 2 2 4 4 7 7 3 7 7 1 5 5 4 2 1 1 4 4 2 2 2 2 5 3 3 6 3 3 2 3 3 4 4 11 1 15 2	Mariners No. 33/02 3337,39/02 17,27,39,43/02 26*,27,37/02 4,25,31,34/02 15,30,31,34,45/02;1/03 12*,40,46,52/02 32,46/02 1/03 5,15,17,20,49/02 16,36/02 2,23,3/02 15/02 2,21,23/02 25,33/02 17,27,39,43/02 27/02 2,6,17,20,21,24,36,49/02 6,24,31,33/02 15*,31,49,50/02 13,15,18,23,30,31,33,37, 43/02 2,4,12,16,18,25,29,31,32, 33,43,50,52/02 12*,23,52,77,31/02 15*,25,27,31/02 15*,25,27,31,49,50/02 6,23,31,33,34/02 N6,N23,N31,N33, N34/02 14,26,45/02 14,26,45/02 14,26,45/02 17,31,51,17,20,30,31, 37,43,49/02 N5,N6,N7,N13,N15, N17,N20,N30,N31,N37, N43,N49/02 7,31,33,43/02 17*,18,21,23,25,26,29, 31,32,34,40,45,48,50, 52/02 N7,N31,N33,N43/02 17*,18,21,23,25,26,29, 31,32,34,40,45,48,50, 52/02 N7,N31,N33,N43/02 17*,18,21,23,25,26,29, 31,33,43/04 N,N31,N33,N43/02 17*,18,21,23,25,26,31,32, 33,34,36,40,45,48,50, N52/02 7,13,30,43/02 2,21,23,25,26,31,32, 33,34,36,40,45,48,702 2,21,23,25,29,52/02 17*,21,23,25,26,31,32, 33,34,36,40,45,48/02 2,21,23,25,29,36,40,46,48/02 2,21,23,25,29,36,40,46,48/02 2,21,23,25,29,36,40,46,48/02 2,27,28,28/02 5,12,27,28,28/02 5,12,27,28,28/02 5,12,27,28,28/02 5,12,25,28,32/02 5,18,28,29/02 5,17,29/02 18/02 20,27,28,29/02		No. 15 6 8 8 7 9 9 8 6 2 2 1 1 5 5 3 3 10 0 9 9 13 1 1 5 5 2 2 2 2 1 1 5 5 3 3 4 4 6 6 29 9 13 3 10 0 4 4 18 8 2 2 11 1 10 5 5 2 2 2 2 2 8 8 3 10 10 0 2 3 7 7 3 2 2	Mariners No. 31/02 14*.29,40/02 19,52/02 19,33/02 30/02 30/02 30/02 30/02 27,31,39/02 45/02 7,53,34/02 8,39/02 7,15,19,20,22,24,25,34,38,45,49/02 7,15,19,20,22,24,25,34,38,45,49/02 7,15,23,37,38,49/02 91,11,35,44/02 27,34,42/02 34/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 23,36/02 25,8,13/02 45/02 15/02 16/02 1/03 38,946/02;1/03 28,10,33,37/02 32/02 58,13/02 44/02 38/02 18,38/02 17/02 23,38/02 17/02 23,38/02 438/02 17/02 23,38/02 44/02		No. 8 10 10 8 7 8 8 3 2 2 8 8 4 4 2 2 7 7 2 2 2 2 3 3 9 4 4 3 3 10 2 2 2 2 2 6 8 8 9 9 4 4 4 2 2 8 8 3 5 5 10 4 4 3 3 9 4 4 3 4 4 4 2 5 5 7 7 4 4 7 4 4 6 6 3 4 4 5 6 6	
62270 4 62271 5 62285 2 62290 3 62292 2 62295 3	37,41/02 37,41/02 26/02 2,11,26,37,41/02 24/02 2/02 6,27/02	63054 63055 63060 63062 63063 63065	3 2 7 7 9 6	19*,31/02 5,14,29/02 5,12,25,28,32/02 5,18,28,29/02 5,27,29/02 18/02	71271 71272 71273 71275 71281 71285	10 10 2 3 7 3	23,25,30,34,52/02 23,30,34/02 14/02 13,23,35/02 51/02 2,7,23,25,30,34,52/02	74004 74005 74006 74007	2 2 2 1	2,22,25,28,47/02 12,13,18,35,37,39,47/02 9,13,18,19,31,34,35,46, 47,51/02 26,31/02 36/02
62360 5 62361 2 62366 3 62392 7 62393 7 62394 10 62395 2 62400 17 62401 9 62402 9 62406 2 62408 7 62409 6 62411 1 62413 11	18,38/02 N18,N38/02 38,40/02 14*,18/02 34,37,50/02 34,37,50/02 23,24,33/02 11/02 2.5,6,15,17,20,49/02 8,24,33/02 11,15/02 2/02 52/02	63100 63101 63102 63103 63110 63111 63120 63121 63120 63201 63210 632201 63230 63231 632321	2 15 19 17 4 9 2 5 1 5 9 3 5 6 8 3	20,21,32,39,46,3,2702 44,15,44/02 14,17,19/02 14,17,26,29/02 40/02 17,25,48/02 44,48,52/02 48/02 14,15,25,31/02 52/02 40/02 40/02 14,15,25,31/02 52/02 40/02 45,52/02 26,45,52/02 17*,45/02 31,45/02 45/02	71310 71330 71340 71348 71350 71400 71401 71402 71410 71420 71430 71440 71450 71465 71470	11 13 11 3 8 5 1 1 1 1 2 1 1 1 1 2	142.731,34,02 35/02 18,19,22,40,46/02 18,35/02 15,18,20/02 11/02 40,46,51/02 18,40,02 11,39/02 38,39/02 18,41/02 7,24,34,38,49,52/02 22,25/02 15,20,25,41/02 20/02 15,38/02	74017 74018 74020 74021 74024 74027 74030 74042 74053 74054 74071 74151 74151 74152 74153 74162	7 7 9 6 1 2 2 4 9 11 2	20,40/02 3,12,17,18,37,45/02 44/02 16,17,33,37,38,43/02 10,13,14,20,33,35,39, 44/02 31,44/02 10,28,51/02 6/02 10,28,51/02 28/02 12/02 4,10,20,24,27,36,44/02 14,36,44/02 4,14,36,44/02 10,36,46,47/02

CHARTS AFFECTED BY NOTICE TO MARINERS NM 2/02 THROUGH NM 1/03

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
74171	4	33,36,47/02	74494		41/02	76081	7	9,12/02	91360	2	11/02
74172 74181	5 8	2,36,47/02 2,11,13,23,28,33,35,37,	74510 74515		14,16,17,33,35,37/02 10,13,14,20,28,33,35,	76083 76090	3 6	1/03 2,9/02	91400 91407	2 2	10/02 10/02
74182	12	38,39,47/02 3,5,11,13,23,24,25,26,28,	74517	3	39/02 10,13,18,20,21,39,41/02	76110 76120	5 6	23/02 6,22,23,25/02	92006 92010	5	45,46/02 19/02
74102	12	33,35,37,38,39,41,42,44,	74521	3	28,41/02	76121	8	4,9/02	92020	2	19/02
74183	11	51/02 11,38,39,42/02	74527 74530		28/02 28,44/02	76140 76141	7 8	2,46/02 4,14,19,46/02	92025 92030	3 4	10,11,13,21/02 7,10,11,19,21/02
74184		10,13,23,24,28,33,35,37,	74535	2	31,42,44,48/02	76142	1	46/02	92033	5	45/02
74186	7	38,46,48/02 11,18,34/02	74545 74555		28,40/02 10,34,43,44,48,51/02	76146 76147	1 1	2,8/02 2/02	92060 92061	3	21/02 21/02
74190	7	2,13,22,23,26,35,36,37, 46/02;1/03	74560	10	14,23,28,32,40,43,46,48, 50/02	76150 76151	6 7	35/02 5,22/02	92110 92115	3 1	13/02 13,15/02
74191	2	19,22,24,26,35,46,48/02;	74581	9	9,13,20,26,32,34,36,40,	76161	10	9,40/02	92120	3	5/02
74192	3	1/03 5,24,26,28,35,46/02;1/03	74582	9	41,43,45/02 3,9,13,18,26,28,40/02	76170 76171	7 10	29/02 9/02	92200 92210	3	10,19/02 18*,19/02
74200		5,14,18,21,27,28,37,	74583 74584	15	26,32,34,40,43,44,48/02	76180 81002	1	2,4,6,18,22,23/02	92214 92216	4	3,19/02
74201	9	46/02;1/03 27/02	74364		4,18,22,25,32,34,41,43, 45/02	81002	6 5	18/02 18/02	92216	2	23/02* 3/02
74202 74204		14,16,21,24/02;1/03 13,14,21,24,27,37/02;	74590 74591		10,28,51/02 10,40/02	81048 81054	8 12	14/02 14,29/02	92290 92293	2 2	7,11/02 7,11/02
		1/03	74595	2	28/02	81063	5	2/02	92310	4	5,11,13/02
74205 74206		16,24,25/02 8,24,34/02	75000 75001		47/02 9,23,47/02	81067 81076	5 9	51/02 51/02	92320 92380	4	7,10/02 7,10,11/02
74210	7	12,25/02	75010	7	16,18,41,42,50/02	81092	3	38*,50/02	92385	4	7,10/02
74220	8	6,11,13,17,23,25,26,35, 47,51/02	75025 75035		14,22,23,36,39/02 10,21,24,36,39/02	81711 81715	6 4	23/02 23/02	92410 92420	3 4	10,11,14/02 11/02
74221 74229	2 2	11,13,35,51/02 5,6,11,17,22,23,33,37,43,	75051 75052		13,16/02 13,16/02	82015 82020	13 7	22/02 22/02	92450 92460	3	
		47/02	75110	2	50/02	82030	8	12,18/02	92470	3	19,21/02
74230 74231	7 7	11,13,28,39,42/02 5,6,19,23,35/02	75120 75130		16,42/02 7,16,18,21,27,31,34,41,	82210 82242	2	42,48/02 35,48,50/02	92560 93006	4 2	45/02 21,39,45/02
74232	9	2,9,15/02			50,51/02	82244	5	35,42,48/02	93010	6	15,17,22,27,38,40,41/02
74234 74240		2/02 4,9,15,34,39,42/02	75131 75132		18,20,28/02 31/02	82253 82374	7 9	35,48,50/02 22/02	93018 93020	8 2	9,27/02;1/03 15,24,38/02
74251	8	4,15,17,23,25,26,31,32, 34,37,42,44,46,51/02	75134 75142		7,23,27,33,51/02 4,8,15,21,28,36,42,50/02	82377 82580	2 2	22/02 19/02	93022 93025	4 5	6,18/02 45/02
74252		19,47/02	75142		4,12,15,20,28,32,33,36,	82646	2	19,33/02	93030	6	6,18,45/02
74253	6	4,11,15,17,19,23,25,27, 32,47/02	75144	3	38,42,50/02 20,31,33,36,42,51/02	82649 82683	5 4	3,18,20,33/02 6,18,33/02	93032 93043	3 1	45/02 45/02
74261	9	15,25,41,49/02	75150	5	13,16,50/02	82684	3	3,12,18,33,38/02	93046	1	9,45/02
74265	2	4,11,15,17,18,19,25,31, 38,41,43,47,49/02	75160 75170		6,22,23,24/02 38,39/02	82689 82690	3 10	5,6,18,38/02 6,18,19,20/02	93047 93048	1	45,49/02 35,49/02
74270 74271	3	9,18,19,26,31,38/02	75171	22	5,8,10,12,14,17,18,22,27, 31,32,33,36,38,40,42,48,	82694 82697	6 6	38/02 38,46/02	93049 93061	1 4	
74272	7	9,19,28,38,46/02 26,32/02			52/02;1/03	83020	8	7/02	93101	2	N24,N34,N38/02
74273 74283	5 2	18,19,31,38,41,43/02 46,49/02	75172 75173		39/02 8,10,12,14,17,20,25,31,	83021 83023	1 4	25,27,43/02 25,27,43/02	93110 93113	2 2	22,24,38,40,41/02;1/03 19/02
74285	2	31,34,35,45/02;1/03			32,33,36/02;1/03	83026	32	18,41/02	93115	2	40,41/02
74286 74287	2 2	15,22,24/02 27,34,38,52/02	75175	9	5,16,18,31,33,38,40,45, 50/02	83032 83034	1 1	18/02 12/02	93117 93160	2	19,40,41/02 15*,27,34/02;1/03
74289 74290		13,18,26/02 13,25,34,39,45,46,48,49,	75176 75177		5,7,14,17,27,42,50/02 5,12,18,27,38,48,50,	83039 83252	11 8	9,12,41/02 18/02	93180 93200	7 4	
		51/02;1/03			52/02	83253	2	18/02	93220	6	9,26,27/02 17,27,34/02
74292 74293		13,27,34,38/02 25,34,45,48/02	75180 75185		3/02 22,47/02	83382 83383	9	20,25,27/02 20,25,27/02	93240 93243		17,34/02 42/02
74294	3	25,34,45/02	75190	2	11,23,47/02	83385	19	20,27/02	93247	4	26/02
74295 74296		18,22/02 27,34,38,49/02	75191 75193		3,22,25,37,38,43,47/02 22,49/02;1/03	83392 83393	5 2	31/02 N31/02	93260 93261	8 5	31/02
74310 74320	2 3	9/02 35/02	75207 75208		36,52/02 14,26,50/02	83397 83425	6 6	8,18/02;1/03 3,20,35/02	93360 93385	5 6	38/02 6,18/02
74330	3	15/02	75213	2	36,52/02	83500	1	9,12/02	93404	6	6/02
74340 74350		15,27/02 25/02	75215 75220		36,39,40,52/02 10,14,36,39,49/02	83560 83570	3 2	9/02 5,24/02	93420 93440	4	18/02 18/02
74376 74380	5	43/02 2,3,9,22,32/02	75222 75240	8	18,22,35,40/02 14,36,39/02	83572 83574	1 2	24/02 5/02	93460 93520	7 13	6/02 45/02
74391	3	2,3,9,22,32/02 15/02	75240		34,36/02	83580	2	12,24/02	93320	3	44,45/02
74392 74393		16,22,25,39/02 12,16,18,19,25,28,31,38,	75251 75261		23,33,48/02 13,17,21,23,24,33,36,	91005 91008	6 1	7,10,11,45/02 12,29,44,48/02	93650 93680	2	19,44/02 45,47/02
		41,50/02			48/02	91010	6	29,48/02	93690	2	44/02
74394	2	3,12,18,19,28,31,41,49, 50/02	75262 75263		12,38/02 17,32/02	91020 91025	5 8	10,19,21,22/02 7,10,21,22/02	93698 93710	3	45/02 14,26/02
74410		16,20,25,38/02 39/02	75264	17	16,17,19,33,34,37,41,42,	91030 91040	3	7,10,11,21/02 10,11/02	93720 93721	10 5	39,45,50/02 5,8,9,20,22,26,32,39,42,
74415 74420	3	45/02	75265		44,45/02 13,17,20,21,24/02	91080	4	11,21/02			45,50/02
74430 74440		49/02 32,39/02	76015 76020		3,4,18,23,24,29,35,40/02 8,18/02	91096 91170	1 2	21/02 38,41,44/02	93725 93726	6 4	20,45/02 26,48/02
74450	3	21,22,26,49/02	76030	9	9,12,24,49/02	91240	5	7,10/02	93730	3	6,21,39,40,42,45,47,
74455 74460	4	9,19,21,23,48/02;1/03 21,22,26,37,40,46,49/02	76041 76050	8	2/02 24,49/02	91280 91286	7 10	19,22/02 13,20/02	93733	13	50/02 5,6,17,21,22,26,32,39,
74465 74475		9/02 44/02	76052 76054		8,12,15,21/02 9,49/02	91289 91294	19 8	13,19,20/02 10,14/02	93734	11	45/02 6,17,22,26,32,45/02
74480	2	44/02	76060	7	40/02	91297	9	10,14/02	93736	22	5,6,8,11,16,22,26,32,
74485 74491	3 4	16,43/02 6/02	76061 76070		40/02 4,9,12,23,35/02	91300 91309	3 4	10,21,22/02 13/02	93778	8	41/02 14,47/02
74492 74493	7	6,16/02	76071	9	4,23,35/02	91331	3	10,21/02	94004	6	2,12,14,19,29,30,33,37,
74493	3	6,16,38,43,45/02	76080	0	3/02;1/03	91340	3	11,19,21/02			44,52/02

CHARTS AFFECTED BY NOTICE TO MARINERS **NM 2/02 THROUGH NM 1/03**

99016 2 12.23.33.55.202 9514 8 71.445.97.90.5202.103 96764 2 5.1902 9720 3 2.73.21.243.137.39.42. 94040 13 30.73.475.102 95144 9 5002.103 9680 4 4.19.41.02 9722 2 2.73.10.11.21.243.137. 94040 13 30.73.475.102 95144 9 5002.103 9680 3 4.19.41.02 9722 2 2.73.10.11.21.243.137. 94040 15 25.27.29.03.33.746. 94061 5 25.79.29.03.33.746. 94061 5 25.19.33.54702 9514 1 7.10.19.56.38.39.40.41. 94061 5 25.19.33.54702 9514 1 7.10.19.56.38.39.40.41. 94060 7 29.33.41.02 9514 1 7.10.19.56.38.39.40.41. 94080 17 1.41.52.72.90.33.44. 94080 18 5.13.14.52.73.04.402 9515 1 7.10.18.46.45.00 9680 1 7.10.19.19.19.19.19.19.19.19.19.19.19.19.19.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
94040 13 30,37,47,5102 94060 10 2,57,29,30,33,74,6 95164 9 81,01,93,841,46,48,50, 9680 3 6,1092 97222 12 12,22,847,9020 94060 10 2,57,29,30,33,74,02 9516 14 20,210,33,39,40,41 9680 3 6,02 9723 3 8,42,44,89,200 94061 3 2,57,29,30,33,74,02 94061 3 2,51,93,33,84,702 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3302 94067 10 3402,000 94067 10 3002,000 94067 10 340,000 940,000 94067 10 340,000 94067 10 340,000 94067 10 340,000 94067 10 340,000 94067 10 340,000 94067 10 340,000 94067 10 340,000 940,0			7,8,9,13,14,23,25,40,42,	95142	9	15*,18,19,50,52/02	96780	4	4,11/02			43,44/02
9406 10 2.5.27.29.30.33.74.6 9406 10 3.5.27.29.30.33.74.6 9406 5 2.3.33.54702 9406 7 3.0.30.2 9406 7 10 3.00.2 9406 7 10 3.00.2 9406 7 10 3.00.2 9406 7 10 3.00.2 9406 7 10 3.00.2 9406 7 10 3.00.2 9406 7 10 3.00.2 9406 10 3.00.2 9408 1.2 9408	94040	13		95143	11					97221	20	
94061 5 2.519,33,35,4702 94063 4 29,33,41,02 94080 7 14,15,27,29,30,34,4 94080 7 14,15,27,29,30,34,4 94080 7 14,15,27,29,30,34,4 94080 8 12 51,31,25,4402 94081 8 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,25,4402 94081 12 51,31,32,34,32,34,34,34,34,34,34,34,34,34,34,34,34,34,				95144	9							
94067 10 3302			47/02	95146	14	7,10,19,36,38,39,40,41,	96880	6	6,7,8/02	97224	6	11,18,25,27,46,47,49/02
94080 7 1 44,152,729,30,33,44, 90,103 99,000 4 5,70,20 97227 11 21,24,42,430,2 94082 8 5,15,14,25,73,04402 95151 71 315,182,24,34,37,38,41, 96,01 3 5,71,9,710,2 94083 12 5,15,17,25,4402 95151 71 315,183,43,63,73,84,1 94081 12 5,15,17,25,4402 95152 5 37,380,2 94120 6 12,19,21,33,38,48,50,20 95152 5 37,380,2 94122 7 19,30,4002 95152 5 37,380,2 94122 7 19,30,4002 95152 5 37,380,2 94123 19 12,31,33,84,244,50,2 94124 13 38,42,4402 95160 13 47,8,91,52,74,14,247, 96,91 16 7,800 97231 11 10,14,102 94124 13 38,42,440,2 94126 7 19,30,4002 97231 11 22,93,6,52,00 94127 12 21,33,384,24,45,00 95160 13 47,8,91,52,74,14,247, 96,91 16 7,800 97232 18 41,50,02,500 94124 13 38,42,4402 95160 13 47,8,91,52,74,14,247, 96,91 16 7,800 97232 18 12,93,63,70,84,14,900,1103 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,380,2 94120 7 22,13,3,3,30,2 94120 7 22,13,3,3,30,2 94120 7 22,13,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,3,	94063	3 4	29,33,41/02			1/03	96882	4	7,8/02			44,45/02
94082 8 5.13,14,25,27,30,4402 94083 12 5.13,17,25,4402 94084 17 5.13,17,25,4402 94084 17 5.13,17,25,4402 94084 17 5.13,17,25,4402 94127 7 19,30,403,38,88,5,202 94128 7 19,30,403,38,84,45,502 94129 7 19,30,403,38,84,45,502 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,21,33,38,02 94129 12,33,34,04,04,04 94129 12,33,34,04,04 94129 12,33,34,04,04 94129 12,33,34,04 94129 12,34,04 94129 12,34,04 94129 12,34,04 94129 12,34,04 94129 12,34,04				95147	13							
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CHARTS AFFECTED BY NOTICE TO MARINERS NM 2/02 THROUGH NM 1/03

Note: N indicates Not For Sale; P indicates Preliminary; T indicates Temporary; * indicates New Edition/New Chart; ** indicates Chart Canceled

				
Chart Ed. No. No.	Notice to Mariners No.			
97480 7 97481 6 97483 7 97521 6 800669 8 800744 1	21/02 12,21,35,52/02 10,47,49/02 48,52/02 19,42/02 N20/02 N22,N49/02 N5,N6,N7,N21/02 N28/02			
802260 5 803404 2 804037 1 804059 2	N3/N3/N3/N32/N2 N18/02 N10/02 N14/N23,N31,N35/02; N1/03 N20/02 N26/02 N28/02 N28/02 N17/02 N37,N51/02			
807861 2 808528 1 809310 9	N27/02 N25/02 N13,N18,N39/02 N25,N50/02			
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NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
	REGION 1						
WOPGN530 (7642014009484)	San Diego to Aleutian Islands and Hawaiian Islands (LORAN-C) (New edition due to numerous Notice to Mariners corrections)	4,860,700	<u>30</u>	3/02	NOS	1-94	22/02
WOPGN531 (7642014009485)	Strait of Juan de Fuca to Kodiak Island (LORAN-C) (New edition due to numerous Notice to Mariners corrections)	2,100,000	<u>21</u>	2/02	NOS	1-94	18/02
11ACO11006	Key West to the Mississippi River (LORAN-C)	875,000	30	4/02	NOS	1-94	28/02
(7642014010099)	(New edition due to numerous Notice to Mariners corrections)	675,000	<u>50</u>	702	1105	1 74	20/02
11ACO11013	Straits of Florida (LORAN-C)	1,200,000	44	1/02	NOS	1-94	18/02
(7642014010096)	(New edition due to numerous Notice to Mariners corrections)	, ,					
11ACO11300	Galveston to Rio Grande (LORAN-C)	460,732	<u>38</u>	4/02	NOS	1-94	26/02
(7642014010097)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
11BHA11302 (7642014010202)	Stover Point to Port Brownsville including Brazos Santiago Pass (New edition due to numerous Notice to Mariners corrections)	40,000	<u>29</u>	6/02	NOS	1-94	34/02
11AHA11309	Corpus Christi Bay	40,000	36	1/02	NOS	1-94	13/02
(7642014010115)	(New edition due to numerous Notice to Mariners corrections)	ŕ	_				
11AHA11311	Corpus Christi Harbor	10,000	<u>23</u>	1/02	NOS	1-94	15/02
(7642014010116)	Continuation: Tule Lake Channel to Viola Turning Basin (New edition due to various general changes)	10,000					
11XHA11315 (7642014010221)	Espiritu Santo Bay to Carlos Bay including San Antonio Bay and Victoria Barge Canal (New edition due to numerous general changes)	40,000	<u>30</u>	6/02	NOS	1-94	37/02
11XHA11317	Matagorda Bay	50,000	<u>29</u>	2/02	NOS	1-94	20/02
(7642014010217)	Continuations: Lavaca River Tres Palacios Bay Inset: Port Lavaca (New edition due to numerous Notice to Mariners corrections)	50,000 50,000 20,000					
11AHA11321	San Luis Pass to East Matagorda Bay (LORAN-C)	80,000	<u>29</u>	12/01	NOS	1-94	12/02
(7642014010122)	(New edition due to numerous general changes)						
11AHA11323	Approaches to Galveston Bay (LORAN-C)	80,000	<u>59</u>	3/02	NOS	1-94	26/02
(7642014010119)	(New edition due to numerous Notice to Mariners and general changes)						
11AHA11324 (7642014010120)	Galveston and Texas City Harbors	25,000	<u>32</u>	3/02	NOS	1-94	22/02
(7042014010120)	(New edition due to numerous general changes)						
11AHA11325 (7642014627114)	Houston Ship Channel-Carpenter Bayou to Houston	10,000	<u>34</u>	2/02	NOS	1-94	19/02
(7012011027111)	(Not shown on index) (New edition due to numerous Notice to Mariners corrections)						
11AHA11329 (7642014010124)	Houston Ship Channel-Alexander Island to Carpenter Bayou	10,000	<u>34</u>	1/02	NOS	1-94	12/02
(,0.2011010124)	Continuation: San Jacinto and Old Rivers (New edition due to numerous general changes)	25,000					
11AHA11332 (7642014010129)	Sabine Bank (LORAN-C)	80,000	<u>28</u>	8/02	NOS	1-94	42/02

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
11XHA11347 (7642014010226)	Calcasieu River and Lake	50,000	<u>33</u>	7/02	NOS	1-94	42/02
(7042014010220)	(Not shown on index) (New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
11BCO11349 (7642014010183)	Vermilion Bay and Approaches (LORAN-C)	80,000	<u>40</u>	7/02	NOS	1-94	38/02
(7042014010183)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11350 (7642014010223)	Wax Lake Outlet to Forked Island including Bayou Teche, Vermilion River, and Freshwater Bayou (New edition due to various general changes)	40,000	<u>24</u>	1/02	NOS	1-94	15/02
11AHA11353 (7642014597213)	Baptiste Collete Bayou to Mississippi River-Gulf Outlet	40,000	2	<u>3/02</u>	NOS	1-12,94	21/02
(7042014377213)	Baptiste Collete Bayou Extension (New edition due to numerous Notice to Mariners and general changes)	20,000					
11XHA11355 (7642014010227)	Catahoula Bay to Wax Lake Outlet including the Houma Navigational Canal (Not shown on index) (New edition due to numerous Notice to Mariners and general changes)	40,000	<u>24</u>	6/02	NOS	1-94	37/02
11BCO11357	Timbalier and Terrebonne Bays (LORAN-C)	80,000	<u>35</u>	<u>6/02</u>	NOS	1-94	36/02
(7642014010182)	(New edition due to numerous Notice to Mariners corrections)						
11BCO11358 (7642014010188)	Barataria Bay and Approaches (LORAN-C)	80,000	<u>51</u>	3/02	NOS	1-94	23/02
(7042014010188)	(New edition due to numerous Notice to Mariner corrections)						
11AHA11359 (7642014010128)	Loop Deepwater Port (LORAN-C)	50,000	11	<u>3/02</u>	NOS	1-94	22/02
(7012011010120)	(New edition due to numerous general changes)						
11ACO11360 (7642014010104)	Cape St. George to Mississippi Passes (LORAN-C)	456,394	<u>40</u>	10/02	NOS	1-94	1/03
(,0.201.010101)	(New edition due to numerous Notice to Mariners corrections)						
11AHA11361 (7642014010133)	Mississippi River Delta (LORAN-C)	80,000	<u>69</u>	1/02	NOS	1-94	13/02
((3.23.33.33.7)	Insets: Southwest Pass South Pass Head of Passes (Insets not shown on index) (New edition due to numerous Notice to Mariners and general changes)	40,000 40,000 40,000					
11BCO11363 (7642014010189)	Chandeleur and Breton Sounds (LORAN-C)	80,000	<u>38</u>	3/02	NOS	1-94	26/02
(7042014010107)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11365 (7642014007741)	Barataria and Bayou Lafourche Waterways	50,000	<u>17</u>	10/02	NOS	1-94	52/02
((Not shown on index) (New edition due to numerous Notice to Mariners corrections)						
11ACO11366 (7642014014429)	Approaches to Mississippi River (LORAN-C)	250,000	7	9/02	NOS	1-94	48/02
(7042014014429)	(New edition due to numerous Notice to Mariners corrections)						
11AHA11368 (7642014010135)	New Orleans Harbor-Chalmette Slip to Southport	15,000	<u>22</u>	7/02	NOS	1-94	38/02
(70+201+010133)	Continuations: Mississippi River Gulf Outlet Canal Inner Harbor Navigation Canal (Continuations not shown on index) (New edition due to numerous Notice to Mariners corrections)	15,000 15,000					

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
11BHA11373	Mississippi Sound and Approaches (LORAN-C)	80,000	<u>42</u>	6/02	NOS	1-94	31/02
(7642014010203)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11374 (7642014010235)	Dauphin Island to Dog Keys Pass	40,000	<u>31</u>	<u>8/02</u>	NOS	1-94	45/02
(7042014010233)	Extension: Pascagoula River (Not shown on index) (New edition due to numerous Notice to Mariners and general changes)	40,000					
11BHA11375 (7642014010209)	Pascagoula Harbor	20,000	<u>35</u>	8/02	NOS	1-94	1/03
(7042014010209)	(New edition due to numerous Notice to Mariners and general changes)						
11AHA11376 (7642014010131)	Mobile Bay (LORAN-C)	80,000	<u>48</u>	12/01	NOS	1-94	9/02
(7042014010131)	Inset: Mobile Ship Channel-Northern End (New edition due to numerous general changes)	25,000					
11AHA11377 (7642014015237)	Mobile Bay-Approaches and Lower Half	40,000	4	<u>4/02</u>	NOS	1-94	26/02
(7042014013237)	(New edition due to numerous Notice to Mariners and general changes)						
11XHA11378 (7642014010230)	Santa Rosa Sound to Dauphin Island	40,000	31	12/01	NOS	1-16,94	10/02
(7012011010230)	(Not shown on index) (New edition due to numerous Notice to Mariners and general changes)						
11AHA11382 (7642014010132)	Pensacola Bay and Approaches (LORAN-C)	80,000	<u>39</u>	9/02	NOS	1-94	46/02
(7042014010132)	(New edition due to various general changes)						
11AHA11383 (7642014010138)	Pensacola Bay	30,000	<u>49</u>	2/02	NOS	1-94	19/02
(7012011010100)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11385 (7642014010231)	West Bay to Santa Rosa Sound	40,000	<u>25</u>	4/02	NOS	1-94	23/02
	Extension: East Bay (Not shown on index) (New edition due to numerous Notice to Mariners corrections)	80,000					
11XHA11390	East Bay to West Bay	40,000	<u>22</u>	3/02	NOS	1-16,94	23/02
(7642014010232)	(Not shown on index) (New edition due to numerous Notice to Mariners corrections)						
11ACO11400 (7642014010101)	Tampa Bay to Cape San Blas (LORAN-C)	456,394	<u>34</u>	11/01	NOS	1-94	9/02
(7042014010101)	(New edition due to numerous general corrections)						
11BCO11405 (7642014010187)	Apalachee Bay (LORAN-C)	80,000	<u>28</u>	4/02	NOS	1-94	31/02
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(New edition due to numerous Notice to Mariners corrections)						
11BCO11407 (7642014010193)	Horseshoe Point to Rock Islands (LORAN-C)	80,000	<u>18</u>	1/02	NOS	1-16,94	15/02
	Inset: Horseshoe Beach (New edition due to numerous Notice to Mariners and general changes)	20,000					
11XHA11411 (7642014007673)	Tampa Bay to Port Richey	40,000	<u>14</u>	8/02	NOS	1-94	43/02
(7042014007073)	(New edition due to numerous general changes)						
11AHA11412 (7642014010142)	Tampa Bay and St. Joseph Sound (LORAN-C)	80,000	<u>41</u>	8/02	NOS	1-94	42/02
(= 201 13101 .2)	(New edition due to numerous general changes)						

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

	es that column in which a correction has been made or new information added.			dition	Deigo		
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NT
11AHA11415 (7642014627118)	Tampa Bay Entrance	40,000	<u>4</u>	12/01	NOS	1-94	10
(7042014027110)	Extension: Manatee River (New edition due to numerous general changes)	40,000					
11AHA11415 7642014627118)	Tampa Bay Entrance	40,000	<u>5</u>	8/02	NOS	1-94	42
7042014027110)	Extension: Manatee River (New edition due to numerous Notice to Mariners and general changes)	40,000					
11AHA11416 7642014627120)	Tampa Bay	40,000	4	1/02	NOS	1-16,94	12
,01201102/120)	Insets: Tampa St. Petersburg Safety Harbor (Insets not shown on index) (New edition due to numerous general changes)	20,000 20,000 80,000					
11AHA11416 7642014627120)	Tampa Bay	40,000	<u>5</u>	8/02	NOS	1-94	42
7042014027120)	Insets: Tampa St. Petersburg Safety Harbor (Insets not shown on index) (New edition due to numerous general and Notice to Mariners changes)	20,000 20,000 80,000					
11XHA11425 7642014010236)	Charlotte Harbor to Tampa Bay	40,000	<u>34</u>	9/02	NOS	1-94	46
7042014010230)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
11BCO11426 7642014010191)	Estero Bay to Lemon Bay (LORAN-C)	80,000	<u>35</u>	6/02	NOS	1-94	31
7042014010171)	Inset: Continuation of Peace River (New edition due to numerous general changes)	40,000					
11XHA11428 7642014010243)	Okeechobee Waterway-St. Lucie Inlet to Fort Myers and Lake Okeechobee (Not shown on index) (New edition due to numerous Notice to Mariners corrections)	80,000	<u>32</u>	10/02	NOS	1-94	52
11BCO11429 7642014010192)	Chatham River To Clam Pass (LORAN-C)	80,000	<u>21</u>	9/02	NOS	1-94	47
7042014010192)	Insets A: Naples Bay B: Everglades Harbor (Insets not shown on index) (New edition due to numerous Notice to Mariners corrections)	30,000 30,000					
11BCO11431	East Cape to Mormon Key (LORAN-C)	80,000	<u>12</u>	4/02	NOS	1-94	3
7642014010198)	(New edition due to various general changes)						
11ACO11434 7642014010108)	Sombrero Key to Dry Tortugas (LORAN-C)	180,000	<u>24</u>	3/02	NOS	1-94	21
7042014010100)	(New edition due to numerous Notice to Mariners corrections)						
11AHA11439 7642014010141)	Sand Key to Rebecca Shoal (LORAN-C)	80,000	<u>25</u>	<u>2/02</u>	NOS	1-94	15
, 0.201.0101.11)	(New edition due to numerous Notice to Mariners corrections)						
11AHA11447 7642014010148)	Key West Harbor	10,000	<u>35</u>	7/02	NOS	1-94	38
· /	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
11BCO11450 7642014010199)	Fowey Rocks to American Shoal (LORAN-C)	180,000	<u>8</u>	3/02	NOS	1-94	26
/ UT2014010177)	(New edition due to various general changes)						
11ACO11452 (7642014010109)	Alligator Reef to Sombrero Key (LORAN-C)	80,000	<u>21</u>	4/02	NOS	1-94	31
, 0 +201 +010109)	(New edition due to numerous general changes)						1

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
11ACO11460	Cape Canaveral to Key West (LORAN-C)	466,940	<u>38</u>	6/02	NOS	1-94	36/02
(7642014010105)	(New edition due to numerous Notice to Mariners corrections)						
11ACO11462	Fowey Rocks to Alligator Reef (LORAN-C)	80,000	<u>24</u>	3/02	NOS	1-94	22/02
(7642014010107)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11465	Miami to Elliott Key	40,000	<u>36</u>	10/02	NOS	1-94	52/02
(7642014010254)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11467 (7642014010255)	West Palm Beach to Miami	40,000	<u>37</u>	9/02	NOS	1-94	47/02
(7042014010233)	(New edition due to numerous Notice to Mariners corrections)						
11AHA11468	Miami Harbor	10,000	<u>39</u>	8/02	NOS	1-94	42/02
(7642014010144)	(New edition due to various general changes)						
11BHA11481 (7642014014489)	Approaches to Port Canaveral	25,000	4	8/02	NOS	1-94	42/02
(7042014014489)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11487 (7642014627122)	Racy Point to Crescent Lake	<u>40,000</u>	<u>19</u>	11/01	<u>NOS</u>	1-20,94	9/02
(7042014027122)	(Not shown on index) (New edition due to changes in format-formerly Chart 11492, Side B only)						
11XHA11492	Jacksonville to Racy Point	<u>40,000</u>	<u>19</u>	11/01	NOS	1-20,23,	9/02
(7642014010259)	(Not shown on index) (New edition due to numerous general changes and changes in format-formerly Chart 11492, Side A omly)					94	
11XHA11495	Dunns Creek to Lake Dexter	40,000	<u>16</u>	2/02	NOS	1-17,19, 94	19/02
(7642014010260)	(Not shown on index) (New edition due to changes in format-formerly Chart 11495, Side A only)					94	
11XHA11498	Lake Dexter to Lake Harney	40,000	<u>16</u>	2/02	<u>NOS</u>	1-17,94	19/02
(7642014627128)	(Not shown on index) (New edition due to changes in format-formerly Chart 11495, Side B only)						
11AHA11503 (7642014010157)	St Marys Entrance-Cumberland Sound and Kings Bay	25,000	<u>39</u>	<u>7/02</u>	NOS	1-20,94	38/02
(7042014010137)	(New edition due to numerous Notice to Mariners corrections)						
11BCO11509 (7642014010197)	Tybee Island to Doboy Sound (LORAN-C)	80,000	<u>27</u>	<u>1/02</u>	NOS	1-94	12/02
(7042014010177)	(New edition due to numerous Notice to Mariners corrections)						
11XHA11511 (7642014010263)	Ossabaw and St. Catherines Sounds	40,000	<u>16</u>	12/01	NOS	1-94	12/02
(7042014010203)	(New edition due to numerous Notice to Mariners corrections)						
11AHA11512 (7642014010161)	Savannah River and Wassaw Sound	40,000	<u>58</u>	11/01	NOS	1-94	10/02
(7042014010101)	(New edition due to numerous general changes)						
11XHA11514 (7642014010268)	Savannah River to Brier Creek	20,000	<u>26</u>	<u>7/02</u>	NOS	1-94	37/02
(7042014010200)	(Not shown on index) (New edition due to numerous general changes)						
11XHA11515 (7642014010269)	Savannah River-Brier Creek to Augusta	20,000	<u>17</u>	11/01	NOS	1-94	10/02
(, 0.201 101020))	(Not shown on index) (New edition due to various general changes)						

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
11XHA11518	Casino Creek to Beaufort River	40,000	<u>32</u>	2/02	NOS	1-94	15/02
(7642014010267)	(New edition due to various general changes)						
11ACO11520 (7642014010114)	Cape Hatteras to Charleston (LORAN-C)	432,720	<u>40</u>	6/02	NOS	1-94	31/02
(7042014010114)	(New edition due to numerous general changes)						
11AHA11521 (7642014010159)	Charleston Harbor and Approaches (LORAN-C)	80,000	<u>26</u>	2/02	NOS	1-94	15/02
(7042014010137)	(New edition due to numerous Notice to Mariners and general changes)						
11AHA11523 (7642014010160)	Charleston Harbor Entrance	20,000	<u>21</u>	<u>2/02</u>	NOS	1-94	15/02
(7042014010100)	(New edition due to numerous Notice to Mariners and general changes)						
11AHA11524 (7642014010165)	Charleston Harbor	20,000	<u>45</u>	<u>1/02</u>	NOS	1-94	13/02
(7012011010103)	Continuations: Ashley River Wando River	20,000 20,000					
	(Continuations not shown on index) (New edition due to numerous Notice to Mariners and general changes)	20,000					
11AHA11531 (7642014010166)	Winyah Bay to Bulls Bay (LORAN-C)	80,000	21	5/02	NOS	1-20,94	31/02
(7042014010100)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
11XHA11532 (7642014010276)	Winyah Bay	40,000	<u>20</u>	<u>2/02</u>	NOS	1-94	15/02
(7042014010270)	(New edition due to numerous general changes)						
11BCO11535 (7642014010204)	Little River Inlet to Winyah Bay Entrance (LORAN-C)	80,000	<u>12</u>	1/02	NOS	1-94	12/02
(/0.201.010201)	(New edition due to numerous Notice to Mariners and general changes)						
11AHA11536 (7642014010163)	Approaches to Cape Fear River (LORAN-C)	80,000	<u>15</u>	2/02	NOS	1-94	19/02
(7042014010103)	(New edition due to changes in hydrography and numerous general changes)						
11AHA11544 (7642014010169)	Portsmouth Island to Beaufort (LORAN-C)	80,000	<u>37</u>	<u>6/02</u>	NOS	1-94	36/02
(701201101010)	(New edition due to various general changes)						
11AHA11545 (7642014010167)	Beaufort Inlet and Part of Core Sound	40,000	<u>60</u>	9/02	NOS	1-94	45/02
,	Inset: Lookout Bight (Inset not shown on index) (New edition due to numerous Notice to Mariners corrections)	20,000					
11AHA11547	Morehead City Harbor	15,000	<u>35</u>	3/02	NOS	1-94	22/02
(7642014010173)	(New edition due to numerous general changes)						
11XCO11548 (7642014010216)	Pamlico Sound, Western Part (LORAN-C)	80,000	<u>38</u>	9/02	NOS	1-94	47/02
(7042014010210)	Continuation of Bay River (New edition due to numerous Notice to Mariners corrections)	80,000					
11ACO11555	Cape Hatteras (LORAN-C)	80,000	<u>38</u>	7/02	NOS	1-94	36/02
(7642014010117)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
12ACO12200 (7642014010293)	Cape May to Cape Hatteras (LORAN-C)	419,706	<u>47</u>	8/02	NOS	1-94	38/02
(7042014010293)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

NIMA Ref. No.					Price		
(National Stk. No.)	Title	Scale = 1:	No.	Date	Category	Page(s)	NTI
12XHA12205 7642014010357)	Cape Henry to Pamlico Sound including Albemarle Sound (Not shown on index) (New edition due to numerous Notice to Mariners corrections and changes in hydrography)	80,000	<u>27</u>	7/02	NOS	1-94	37/
12XHA12206 7642014010358)	Norfolk to Albemarle Sound via North Landing River or Great Dismal Swamp Canal Broad Creek Extension North River Extension Northwest River Extention (Not shown on Index) (New edition due to numerous Notice to Mariners corrections and changes in hydrography)	40,000 80,000 80,000 80,000	<u>29</u>	6/02	NOS	1-20,21, 94	31/
12AHA12208 7642014010302)	Approaches to Chesapeake Bay (New edition due to changes in hydrography)	50,000	8	1/02	NOS	1-94	12/
12BCO12210	Chincoteague Inlet to Great Machipongo Inlet (LORAN-C)	80,000	<u>35</u>	4/02	NOS	1-94	22/
7642014010341)	Inset: Chincoteague Inlet (Inset not shown on index) (New edition due to numerous Notice to Mariners and general changes)	20,000					
12BCO12211 7642014010347)	Fenwick Island to Chincoteague Inlet (LORAN-C)	80,000	<u>40</u>	2/02	NOS	1-22,94	15
7042014010347)	Inset: Ocean City Inlet (Inset not shown on index) (New edition due to changes in hydrography)	20,000					
12XHA12216	Cape Henlopen to Indian River Inlet	40,000	<u>27</u>	9/02	NOS	1-94	47
7642014010363)	Inset: Breakwater Harbor (Inset not shown on index) (New edition due to numerous Notice to Mariners corrections)	10,000					
12AHA12221	Chesapeake Bay Entrance (LORAN-C)	80,000	<u>73</u>	10/02	NOS	1-94	52/
7642014010300)	(New edition due to numerous Notice to Mariners corrections)						
12AHA12222 7642014010301)	Cape Charles to Norfolk Harbor	40,000	<u>42</u>	2/02	NOS	1-94	13.
7042014010301)	(New edition due to numerous Notice to Mariners and general changes)						
12AHA12225 7642014010308)	Chesapeake Bay-Wolf Trap to Smith Point (LORAN-C)	80,000	<u>53</u>	<u>4/02</u>	NOS	1-94	28
	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
12AHA12228	Pocomoke and Tangier Sounds	40,000	<u>29</u>	<u>8/02</u>	NOS	1-94	43/
7642014010304)	(New edition due to various general changes)						
12AHA12230 7642014010305)	Chesapeake Bay-Smith Point to Cove Point (LORAN-C)	80,000	<u>59</u>	10/02	NOS	1-94	52
7042014010303)	Continuation: Pocomoke River (New edition due to numerous Notice to Mariners correctons)	80,000					
12AHA12231 7642014010306)	Tangier Sound-Northern Part	40,000	<u>26</u>	12/01	NOS	1-94	9/
,	(New edition due to chages in hydrography)						
12AHA12235 7642014010313)	Rappahannock River Entrance	40,000	<u>29</u>	12/01	NOS	1-21,94	12
	Continuation: Piankatank River (New edition due to numerous general changes)	40,000					
12AHA12238	Mobjack Bay and York River Entrance	40,000	<u>37</u>	9/02	NOS	1-94	46
7642014010310)	(New edition due to numerous Notice to Mariners corrections)						

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
12AHA12241	York River-Yorktown and Vicinity	20,000	<u>21</u>	1/02	NOS	1-94	9/02
(7642014010311)	(New edition due to numerous Notice to Mariners corrections)						
12AHA12245	Hampton Roads	20,000	<u>60</u>	1/02	NOS	1-94	12/02
(7642014010316)	(New edition due to changes in restricted areas)						
12AHA12248 (7642014010317)	James River-Newport News to Jamestown Island	40,000	<u>39</u>	2/02	NOS	1-94	18/02
(7042014010317)	Continuation of Nanssemond River Insets: Back River College Creek (Insets not shown on index) (New edition due to changes in restricted areas)	40,000 20,000 20,000					
12AHA12253	Norfolk Harbor and Elizabeth River	20,000	<u>42</u>	<u>1/02</u>	NOS	1-94	9/02
(7642014010314)	(New edition due to numerous general changes)						
12AHA12254 (7642014010315)	Cape Henry to Thimble Shoal Light	20,000	<u>43</u>	8/02	NOS	1-94	38/02
(7012011010313)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
12BHA12255 (7642014010346)	Little Creek	5,000	<u>15</u>	<u>2/02</u>	NOS	1-94	13/02
(7042014010340)	(New edition due to changes in restricted areas)						
12AHA12256 (7642014010320)	Thimble Shoal Channel	20,000	<u>13</u>	3/02	NOS	1-94	19/02
(,	(New edition due to numerous Notice to Mariners corrections)						
12AHA12261 (7642014010321)	Honga, Nanticoke, Wicomico Rivers and Fishing Bay with continuations (Continuations not shown on index) (New edition due to numerous Notice to Mariners corrections)	40,000	<u>28</u>	7/02	NOS	1-94	37/02
12AHA12263	Chesapeake Bay-Cove Point to Sandy Point (LORAN-C)	80,000	<u>51</u>	8/02	NOS	1-94	38/02
(7642014010318)	(New edition due to numerous Notice to Mariners corrections)						
12AHA12264 (7642014010319)	Chesapeake Bay-Patuxent River and Vicinity	40,000	<u>28</u>	<u>7/02</u>	NOS	1-21,94	38/02
(7042014010317)	Continuation of Patuxent River to Nottingham (New edition due to numerous Notice to Mariners corrections)	40,000					
12XHA12268 (7642014010367)	Choptank River-Cambridge to Greensboro	40,000	<u>10</u>	3/02	NOS	1-21,94	22/02
((*************************************	Continuation of Choptank River to Greensboro (Continuation not shown on index) (New edition due to numerous Notice to Mariners corrections)	40,000					
12XHA12272 (7642014010365)	Chester River	40,000	<u>29</u>	4/02	NOS	1-95	26/02
(7042014010303)	Insets: Kent Island Narrows Rock Hall Harbor and Swan Creek (Insets not shown on index) (New edition due to numerous Notice to Mariners and general changes)	10,000 10,000					
12AHA12273 (7642014010322)	Chesapeake Bay-Sandy Point to Susquehanna River (LORAN-C) (Not shown on index) (New edition due to numerous Notice to Mariners and general changes)	80,000	<u>53</u>	4/02	NOS	1-95	26/02
12AHA12274 (7642014010323)	Head of Chesapeake Bay	40,000	<u>33</u>	7/02	NOS	1-95	37/02
(7042014010323)	Continuation of Bird River (Continuation not shown on index) (New edition due to numerous Notice to Mariners corrections)	40,000					

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
12AHA12277	Chesapeake and Delaware Canal	20,000	<u>31</u>	4/02	NOS	1-95	26/02
(7642014010328)	Continuation: Salem River	20,000					
	(Continuation not shown on index) (New edition due to numerous general changes and changes in hydrography)						
12AHA12278 (7642014007632)	Approaches to Baltimore Harbor	40,000	<u>72</u>	<u>4/02</u>	NOS	1-95	26/02
(7042014007032)	Continuation: Middle River (Continuation not shown on index) (New edition due to numerous Notice to Mariners and general changes)	40,000					
12ACO12280 (7642014386360)	Chesapeake Bay (LORAN-C)	200,000	<u>3</u>	7/02	NOS	1-95	37/02
(7042014380300)	(New edition due to numerous Notice to Mariners corrections)						
12BHA12282 (7642014010351)	Severn and Magothy Rivers	25,000	<u>33</u>	<u>6/02</u>	NOS	1-95	31/02
(7012011010331)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
12AOA12301 (7642014010343)	Fleet Operating Areas-Vicinity of Narragansett Bay	400,000	21	9/01	DS	1-95	20/02
12AHA12304 (7642014010327)	Delaware Bay (LORAN-C)	80,000	<u>42</u>	<u>4/02</u>	NOS	1-95	28/02
(7012011010327)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
12XHA12314 (7642014010371)	Delaware River-Philadelphia to Trenton	20,000	<u>30</u>	10/02	NOS	1-95	46/02
(7012011010371)	Continuation of Rancocas Creek (New edition due to numerous Notice to Mariners corrections)	20,000					
12XHA12317 (7642014010369)	Cape May Harbor	10,000	<u>31</u>	<u>2/02</u>	NOS	1-95	15/02
(7042014010307)	(New edition due to numerous general changes)						
12AHA12327 (7642014010330)	New York Harbor	40,000	<u>96</u>	11/02	NOS	1-95	1/03
(7012011010330)	(New edition due to numerous Notice to Mariners corrections)						
12AHA12333 (7642014010336)	Kill Van Kull and Northern Part of Arthur Kill	15,000	<u>32</u>	10/02	NOS	1-95	46/02
(70.201.010000)	(New edition due to numerous Notice to Mariners and general changes)						
12AHA12341 (7642014010340)	Hudson River-Days Point to George Washington Bridge	10,000	<u>25</u>	3/02	NOS	1-95	22/02
(7042014010340)	(New edition due to changes in hydrography)						
12XHA12343 (7642014010381)	Hudson River-New York to Wappinger Creek	<u>40,000</u>	<u>18</u>	6/02	NOS	1-24,95	37/02
(7012011010301)	Continuation: Hudson River (New edition due to changes in hydrography)	40,000					
12XHA12345 (7642014010382)	Hudson River-George Washington Bridge to Yonkers	10,000	<u>10</u>	9/02	NOS	1-95	42/02
(7042014010302)	(New edition due to various general changes)						
12XHA12350 (7642014010385)	Jamaica Bay	20,000	<u>57</u>	<u>8/02</u>	NOS	1-95	39/02
(7012011010303)	(New edition due to various general changes)						
12XHA12352 (7642014010383)	Shinnecock Bay to East Rockaway Inlet	40,000	<u>29</u>	11/01	NOS	1-95	9/02
(7012011010303)	(Not shown on index) (New edition due to numerous Notice to Mariners and general changes)						
12BHA12354 (7642014010354)	Long Island Sound-Eastern Part (LORAN-C)	80,000	<u>39</u>	12/01	NOS	1-95	9/02

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

	es that column in which a correction has been made or new information added.		Е	dition	n :		
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
	(New edition due to numerous Notice to Mariners and general changes)						
12XHA12358	Shelter Island Sound and Peconic Bays	40,000	<u>19</u>	9/02	NOS	1-24,95	46/02
(7642014010384)	Inset: Mattituck Inlet (Inset not shown on index) (New edition due to numerous Notice to Mariners corrections)	10,000					
12XHA12364 (7642014010389)	New Haven Harbor Entrance and Port Jefferson to Throgs Neck (Pages A thru H not shown on index) (New edition due to numerous general changes and changes in hydrography)	40,000	33	2/02	NOS	1-95	20/02
12XHA12368	Sherwood Pt to Stamford Harbor	20,000	<u>26</u>	8/02	NOS	1-24,95	42/02
(7642014010392)	(New edition due to various general changes)						
12XHA12369 (7642014010393)	Stratford Point to Sherwood Point	20,000	<u>25</u>	<u>6/02</u>	NOS	1-24,95	31/02
(7042014010393)	(New edition due to numerous Notice to Mariners corrections)						
12XHA12370 (7642014010394)	Housatonic River and Milford Harbor	20,000	<u>18</u>	<u>8/02</u>	NOS	1-24,95	39/02
(7042014010394)	Continuation of Housatonic River (New edition due to numerous Notice to Mariners corrections)	<u>20,000</u>					
12XHA12372 (7642014010391)	Long Island Sound-Watch Hill to New Haven Harbor	40,000	<u>31</u>	8/02	NOS	1-95	45/02
(7042014010391)	(New edition due to various general changes)						
12AHA12401 (7642014007442)	New York Lower Bay-Southern Part	15,000	7	<u>5/02</u>	NOS	1-95	31/02
(70+201+007++2)	(New edition due to changes in hydrography and numerous general changes)						
12AHA12402 (7642014015014)	New York Lower Bay-Northern Part	15,000	<u>8</u>	<u>5/02</u>	NOS	1-95	31/02
(7042014013014)	(New edition due to changes in hydrography and numerous general changes)						
13ACO13006 (7642014010402)	West Quoddy Head to New York (LORAN-C)	675,000	<u>30</u>	7/02	NOS	1-95	39/02
(7042014010402)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
13ACO13009	Gulf of Maine and Georges Bank (LORAN-C)	500,000	<u>30</u>	<u>8/02</u>	NOS	1-95	42/02
(7642014010399)	(New edition due to changes in hydrography)						
13ACO13200 (7642014010400)	Georges Bank and Nantucket Shoals (LORAN-C)	400,000	<u>33</u>	1/02	NOS	1-95	13/02
(7042014010400)	(New edition due to numerous general changes)						
13XHA13214 (7642014010442)	Fishers Island Sound	20,000	<u>27</u>	<u>6/02</u>	NOS	1-95	34/02
(7042014010442)	(New edition due to various general changes)						
13XHA13241 (7642014010451)	Nantucket Island	40,000	<u>15</u>	3/02	NOS	1-95	21/02
(7042014010431)	(New edition due to changes in hydrography)						
13XHA13244	Eastern Entrance to Nantucket Sound	40,000	<u>39</u>	3/02	NOS	1-95	22/02
(7642014010455)	(New edition due to various general changes)						
13ACO13260 (7642014010407)	Bay of Fundy to Cape Cod (LORAN-C)	378,838	<u>38</u>	<u>4/02</u>	NOS	1-95	28/02
(/0+201401040/)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
13AHA13286	Cape Elizabeth to Portsmouth (LORAN-C)	80,000	<u>29</u>	7/02	NOS	1-95	39/02
(7642014010422)	Insets: Cape Porpoise Harbor	10,000					

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

NIMA Ref. No.	es that column in which a correction has been made or new information added.			dition	Price		
(National Stk. No.)	Title	Scale = 1:	No.	Date	Category	Page(s)	NTM
	Kennebunk River Wells Harbor Perkins Cove (Insets not shown on index) (New edition due to changes in hydrography)	10,000 20,000 10,000					
13AHA13288 (7642014010426)	Monhegan Island to Cape Elizabeth (LORAN-C) (New edition due to numerous general changes and changes in hydrography)	80,000	<u>40</u>	2/02	NOS	1-95	15/02
13AHA13292 (7642014010425)	Portland Harbor and Vicinity (New edition due to changes in hydrography)	20,000	<u>36</u>	3/02	NOS	1-95	20/02
13AHA13293	Damariscotta, Sheepscot and Kennebec Rivers	40,000	33	4/02	NOS	1-28,95	26/02
(7642014010428)	Continuation of Androscoggin River Insets: Christmas Cove South Bristol Harbor (Insets not shown on index) (New edition due to numerous Notice to Mariners corrections)	40,000 10,000 10,000	<u>55</u>	17.02	1105	1 20,73	20,01
13BHA13303 (7642014010439)	Approaches to Penobscot Bay (New edition due to numerous Notice to Mariners corrections)	40,000	<u>12</u>	9/02	NOS	1-95	48/02
13BHA13309	Penobscot River	40,000	28	9/02	NOS	1-95	42/02
(7642014010444)	Continuation to Bangor Inset: Belfast Harbor (Inset and Continuation not shown on index) (New edition due to numerous Notice to Mariners corrections)	40,000 10,000	<u> 20</u>	279 2	1,05		
13XHA13315	Deer Island Thorofare and Casco Passage	20,000	11	3/02	NOS	1-95	19/02
(7642014010475)	(New edition due to various general changes)						
13XHA13318 (7642014010478)	Frenchman Bay and Mount Desert Island	40,000	<u>18</u>	8/02	NOS	1-95	38/02
12VII 4 12222	(New edition due to numerous general changes)	10,000	0	2/02	NOC	1.05	10/0
13XHA13322 (7642014010476)	Winter Harbor (New edition due to various general changes)	10,000	9	2/02	NOS	1-95	19/02
13ACO13394	Grand Manan Channel-Northern Part	50,000	3	7/02	NOS	1-95	39/0
(7642014008025)	Inset: North Head and Flagg Cove (New edition due to numerous Notice to Mariners corrections)	15,000	2	1102	1105	1 73	3370
13ACO13396	Campobello Island	20,000	4	12/01	NOS	1-95	13/0
(7642014014795)	Inset: Eastport harbor (Inset not shown on index) (New edition due to numerous Notice to Mariner corrections and changes in hydrography)	5,000					
13ACO13398	Passamaquoddy Bay and St. Croix River	50,000	<u>3</u>	3/02	NOS	1-29,95	19/0
(7642014007816)	Insets: Saint Andrews Todds Point Beaver Harbour (Metric units only) (Insets not shown on index) (New edition due to numerous Notice to Mariners corrections)	15,000 15,000 15,000					
14AHA14088 (7642014010505)	Halifax Harbor Bedford Basin	10,000	<u>10</u>	8/02	A	1-32,95	41/0
14AHA14089 (7642014010506)	Halifax Harbor-Point Pleasant to Bedford Basin	10,000	<u>29</u>	<u>8/02</u>	A	1-32,95	41/02
(,012011010000)	Plan: Ocean Terminals (Plan not shown on index)	5,000					

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
14AHA14091 (7642014010511)	Halifax Harbor-Black Point to Point Pleasant	10,000	<u>6</u>	8/02	A	1-32,95	41/02
14XCO14500 (7642014010561)	Great Lakes (LORAN-C)	1,500,000	<u>27</u>	10/02	NOS	1-40,96	52/02
	(New edition due to numerous Notice to Mariners corrections)						
14XHA14769 (7642014947701)	Can. 1432, Lake St. Francis (Not shown on index)	25,000		<u>7/99</u>	<u>CHS</u>	1-46,96	31/02
14XHA14775 (7642014947702)	Can. 1436, Whaleback Shoal to/AU Summerland Group 44 21 24N 75 58 24W 44 31 30N 75 40 00W	25,000		1/93	<u>CHS</u>	1-46,49, 96	31/02
14XHA14776 (7642014947703)	Can. 1437, Summerland Group to/A Grindstone Island 44 13 54N 76 07 42W 44 24 00N 75 47 00W	25,000		3/93	<u>CHS</u>	1-46,49, 96	31/02
14XHA14777 (7642014947704)	Can. 2042, Welland Canal St. Catharines to/A Port Colborne 42 50 30N 79 17 00W 42 50 30N 79 14 20W 43 16 00N 79 11 16W 43 16 10N 79 13 30W			10/94	<u>CHS</u>	1-46,49, 96	31/02
14XCO14804	Port Bay to Long Pond (LORAN-C)	80,000	<u>24</u>	2/02	NOS	1-96	20/02
(7642014010569)	Insets: Port Bay Harbor Irondequoit Bay (New edition due to numerous Notice to Mariners corrections)	15,000 20,000					
14XCO14820	Lake Erie (Metric) (LORAN-C)	400,000	<u>18</u>	<u>5/02</u>	NOS	1-96	31/02
(7642014010567)	(New edition due to numerous Notice to Mariners corrections)						
14XCO14823 (7642014010574)	Sturgeon Point to Twenty Mile Creek (LORAN-C)	80,000	<u>30</u>	10/02	NOS	1-96	1/03
	Insets: Barcelona Harbor Dunkirk Harbor (New edition due to numerous Notice to Mariners corrections)	5,000 15,000					
14XHA14832 (7642014010655)	Upper Niagara River	30,000	<u>34</u>	10/02	NOS	1-96	52/02
14XHA14836 (7642014010665)	Ashtabula Harbor	5,000	<u>27</u>	8/02	NOS	1-96	42/02
(7042014010003)	(New edition due to numerous Notice to Mariners corrections)						
14XHA14837 (7642014010666)	Fairport Harbor	8,000	<u>27</u>	<u>4/02</u>	NOS	1-96	26/02
(7042014010000)	(New edition due to numerous Notice to Mariners corrections)						
14XCO14838 (7642014597214)	Buffalo to Erie (LORAN-C)	120,000	<u>3</u>	10/02	NOS	1-96	52/02
(7042014377214)	Insets: Barcelona Harbor Dunkirk Harbor (New edition due to numerous Notice to Mariners corrections)	5,000 15,000					
14XHA14848	Detroit River	30,000	<u>56</u>	11/01	NOS	1-96	9/02
(7642014010668)	(New edition due to numerous Notice to Mariners and general changes)						
14XHA14850 (7642014010669)	Lake St. Clair (LORAN-C)	60,000	<u>51</u>	<u>2/02</u>	NOS	1-96	21/02
(7042014010009)	(New edition due to numerous Notice to Mariners and general changes)						
14XHA14852	Saint Clair River	40,000	<u>44</u>	12/01	NOS	1-96	9/02
(7642014010675)	Inset: Head of St. Clair River (Inset not shown on index) (New edition due to numerous Notice to Mariners and general changes)	15,000					

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NIMA Ref. No.					Price		
(National Stk. No.)	Title	Scale = 1:	No.	Date	Category	Page(s)	NTN
14XHA14853 7642014010676)	SMALL-CRAFT BOOK CHART Detroit River, Lake St Clair, St Clair River (book of 47 charts) (New edition due to Notice to Mariners and general changes)	Various	<u>13</u>	12/01	NOS	1-96	21/0
14XCO14862 (7642014010583)	Port Huron to Pte. Aux Barques (LORAN-C)	120,000	<u>28</u>	<u>4/02</u>	NOS	1-42,96	26/
7042014010383)	Insets: Harbor Beach Port Sanilac Harbor (Insets not shown on index) (New edition due to numerous Notice to Mariners corrections)	10,000 5,000					
14XHA14869 7642014010681)	Presque Isle and Stoneport Harbors	60,000	<u>26</u>	12/01	NOS	1-42,96	9/0
7042014010001)	Insets: Stoneport Harbor Presque Isle Harbor (Insets not shown on index) (New edition due to various general changes)	10,000 15,000					
14XCO14881 7642014010582)	De Tour Passage to Waugoshance Point (LORAN-C)	80,000	<u>31</u>	<u>4/02</u>	NOS	1-96	28/
7042014010362)	Insets: Cheboygan Harbor St. Ignace Mackinaw City Mackinac Island Hammond Bay Harbor (New edition due to numerous Notice to Mariners corrections)	15,000 15,000 15,000 10,000 10,000					
14XCO14901 7642014010589)	Lake Michigan (LORAN-C)	500,000	<u>14</u>	10/02	NOS	1-96	52/0
7042014010307)	(New edition due to numerous Notice to Mariners corrections)						
14XHA14916 7642014010691)	SMALL-CRAFT BOOK CHART Lake Winnebago & Lower Fox River (book of 34 charts) (New edition due to numerous general changes)	80,000	<u>10</u>	7/02	NOS	1-96	45/
14XHA14922 7642014010688)	Manitowoc and Sheboygan Harbors	10,000	<u>19</u>	3/02	NOS	1-96	26/
7012011010000)	(New edition due to numerous Notice to Mariners corrections)						
14XHA14924 7642014010689)	Milwaukee Harbor	10,000	<u>27</u>	4/02	NOS	1-96	28/
	(New edition due to numerous Notice to Mariners corrections)						
14XHA14927 7642014010699)	Chicago Lake Front (LORAN-C)	60,000	<u>24</u>	<u>2/02</u>	NOS	1-96	21/
	Inset: Gary Harbor Indiana (Inset not shown on index) (New edition due to numerous Notice to Mariners corrections)	15,000					
14XHA14931 7642014627125)	42 57 55N 86 11 27W 42 57 55N 86 05 56W 43 00 35N 86 05 56W 43 00 35N 86 02 39W 43 03 08N 86 02 39W	15,000	<u>24</u>	5/02	NOS	1-43,45, 96	35/
	43 03 08N 86 11 27W Continuation of Grand River (Continuation not shown on index) (New edition due to changes in format-formerly Chart 14933, Side B only)	15,000					
14XHA14933 7642014010705)	Grand Haven 43 02 29N 86 17 00W 43 07 42N 86 08 13W (New edition due to changes in format-formerly Chart 14933, Side A only)	15,000	<u>24</u>	5/02	NOS	1-43,45, 96	35/
14XHA14937	Ludington Harbor	5,000	<u>24</u>	10/02	NOS	1-43,96	52/
7642014010701)	(New edition due to various general changes)						
14XHA14975 7642014010713)	Duluth-Superior Harbor	15,000	<u>33</u>	10/02	NOS	1-96	52/
1072014010/13)	Inset: Upper St. Louis River	30,000					

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	es that column in which a correction has been made or new information added.		E	dition	Deina		
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	N
	(Inset not shown on index) (New edition due to numerous Notice to Mariners corrections)						
14XHA14984 (7642014010718)	Sea Gull Lake	42,240	9	1/02	NOS	1-96	18
(7042014010710)	(New edition due to various general changes)						
14XHA14995 (7642014010727)	Western Kabetogama Lake	42,240	11	<u>10/02</u>	NOS	1-96	52
7012011010727)	(New edition due to various general changes)						
15XCO15954 (7642014008317)	Can. 7776, Dolphin and Union Strait	150,000	0	<u>5/97</u>	CHS	1-97	4
16ACO16003	Arctic Coast of Alaska	1,587,870	<u>16</u>	1/02	NOS	1-8,97	1
7642014011232)	(New edition due to various general changes)						
16XHA16041	Demarcation Bay and Approaches	51,639	8	12/01	NOS	1-97	1:
7642014011322)	(New edition due to various general changes)						
16XHA16042 7642014011323)	Griffin Pt and Approaches	51,024	7	7/02	NOS	1-60,97	3
7042014011323)	(New edition due to various general changes)						
16XHA16061 7642014011327)	Prudhoe Bay and Vicinity	50,000	<u>8</u>	<u>1/02</u>	NOS	1-97	1
7042014011327)	(New edition due to various general changes)						
16BCO16363 (7642014011269)	Port Moller and Herendeen Bay (LORAN-C)	80,000	<u>12</u>	<u>7/02</u>	NOS	1-97	3
704201401120))	(New edition due to various general changes)						
16ACO16531 7642014011248)	Krenitzin Islands (LORAN-C)	80,000	7	<u>2/02</u>	NOS	1-97	1
(1012011011210)	(New edition due to changes in hydrography)						
16BCO16568 (7642014011279)	Wide Bay to Cape Kumlik (LORAN-C)	106,600	<u>12</u>	7/02	NOS	1-62,97	3
7012011011275)	(New edition due to change in format-chart is no longer preliminary)						
16BCO16590 7642014011280)	Sitkinak Strait and Alitak Bay (LORAN-C)	81,529	<u>10</u>	7/02	NOS	1-97	3
7042014011260)	(New edition due to various general changes)						
16AHA16596 (7642014011259)	Womens Bay	10,000	<u>12</u>	<u>7/02</u>	NOS	1-97	3
7042014011239)	(New edition due to changes in hydrography)						
16BCO16604 (7642014011287)	Shuyak and Afognak Islands and Adjacent Waters (LORAN-C) (New edition due to various general changes)	78,000	<u>11</u>	3/02	NOS	1-97	2
16BCO16606	Barren Islands (LORAN-C)	77,062	11	6/02	NOS	1-97	3
7642014011290)	(New edition due to various general changes)	77,002	11	0/02	1105	1-97	
16BCO16645	Gore Point to Anchor Point	82,662	<u>18</u>	1/02	NOS	1-62,97	1
(7642014011294)	(New edition due to changes in vertical datum)	02,002	10	1/02	NOS	1 02,77	1
16BCO16681	Seal Rocks to Gore Point (LORAN-C)	83,074	10	7/02	NOS	1-62,97	3
(7642014011291)	(New edition due to numerous general changes and changes in hydrography)	03,071	10	7702	1105	1 02,57	
16ACO16700	Prince William Sound (LORAN-C)	200,000	<u>27</u>	3/02	NOS	1-97	2
(7642014011252)	(New edition due to numerous general changes)	200,000		2,32	1.05	- //	-
16BCO16701	Prince William Sound-Western Entrance (LORAN-C)	81,436	<u>18</u>	3/02	NOS	1-97	2
(7642014011298)	(New edition due to numerous general changes)	01,100	1	<u> </u>	1.00	- / .	٦

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NIMA Ref. No.	es that column in which a correction has been made or new information added.			dition	Price		
(National Stk. No.)	Title	Scale = 1:	No.	Date	Category	Page(s)	NTN
16BCO16709	Prince William Sound-Eastern Entrance (LORAN-C)	80,000	<u>22</u>	<u>1/02</u>	NOS	1-97	15/0
(7642014011301)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
16XHA16711 (7642014332997)	Port Wells including College and Harriman Fiords	50,000	2	1/02	NOS	1-97	15/0
(7042014332997)	Extension: Harriman Fiord (New edition due to changes in hydrography)	50,000					
16AHA16713 (7642014601005)	Naked Island to Columbia Bay	50,000	2	1/02	NOS	1-97	13/
(7042014001003)	(New edition due to changes in hydrography)						
16XHA16762 (7642014011373)	Lituya Bay	20,000	9	3/02	NOS	1-97	26/
(,0,201,0110,0)	Inset: Lituya Bay Entrance (Inset not shown on index) (New edition due to various general changes)	10,000					
17BCO17300	Stephens Passage to Cross Sound (LORAN-C)	209,978	<u>30</u>	10/02	NOS	1-8,97	52/
(7642014011387)	Inset: Tenakee Inlet	100,000					
	57 44N 135 20W 57 49N 134 55W Continuations: Glacier Bay	<u>209,978</u>					
	Lynn Canal (Inset and continuations not shown on index)	209,978 209,978					
	(New edition due to changes in hydrography, new inset)						
17BCO17302 (7642014011388)	Icy Strait and Cross Sound	80,000	<u>18</u>	3/02	NOS	1-97	21.
(Insets: Inian Cove Elfin Cove (New edition due to changes in hydrography)	20,000 10,000					
17BCO17316	Lynn Canal-Icy Strait to Point Sherman	80,000	<u>20</u>	4/02	NOS	1-97	28
(7642014011384)	Inset: Funter Bay (New edition due to changes in hydrography)	20,000					
17AHA17379 (7642014563661)	Shaken Bay and Strait 56 07 02N 133 38 10W 56 11 23N 133 27 25W	10,000	1	1/02	NOS	1-74,75, 98	15/
17XHA17381	Red Bay-Prince of Wales Island	20,000	<u>10</u>	1/02	NOS	1-98	13
(7642014011446)	(New edition due to various general changes)						
17BHA17383 (7642014966732)	Snow Passage 56 08 36N 133 12 00W 56 20 52N 132 39 18W	30,000	1	6/02	<u>NOS</u>	1-74,75, 98	31
17BHA17402	Southern Entrance to Sumner Strait	40,000	<u>10</u>	8/02	NOS	1-98	46
(7642014011408)	(New edition due to various general changes)						
17XHA17409	Southern Dall Island and Vicinity	40,000	<u>10</u>	7/02	NOS	1-98	39
(7642014011456)	(New edition due to changes in hydrography)						
17BCO17422	Western Part of Behm Canal	79,334	<u>8</u>	10/02	NOS	1-74,98	52.
(7642014011394)	Inset: Yes Bay (Inset not shown on index) (New edition due to various general changes)	40,000					
17BCO17425	Portland Canal	80,000	<u>6</u>	2/02	NOS	1-74,98	18
(7642014011392)	(New edition due to changes in horizontal datum and various general changes)	•	_				
17XNR17429 (7642014008419)	Naval Range Chart-Southeast Alaska Acoustic Measurement Facilty (SEAFAC)	36,000	2	4/02	DS	1-74,98	38,

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		F	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
18ACO18022	San Diego to San Francisco Bay (LORAN-C)	868,003	<u>33</u>	1/02	NOS	1-98	13/02
(7642014011489)	(New edition due to numerous Notice to Mariners and general changes)						
18BCO18421	Strait of Juan de Fuca to Strait of Georgia (LORAN-C)	80,000	<u>44</u>	2/02	NOS	1-98	20/02
(7642014011544)	Inset: Drayton Harbor (New edition due to numerous Notice to Mariners corrections and changes in hydrography)	30,000					
18XCO18423 (7642014011606)	Bellingham to Everett including San Juan Islands (Folio)	80,000	<u>33</u>	10/02	NOS	1-98	1/03
(7042014011000)	(Not shown on index) (New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
18BHA18427	Anacortes to Skagit Bay	25,000	21	6/02	NOS	1-98	35/02
(7642014011558)	(New edition due to numerous Notice to Mariners corrections)						
18XHA18428 (7642014011614)	Oak and Crescent Harbors	10,000	9	<u>2/02</u>	NOS	1-98	19/02
(7042014011014)	(New edition due to various general changes)						
18BHA18430 (7642014011563)	Rosario Strait-Northern Part	25,000	7	<u>4/02</u>	NOS	1-98	28/02
(7042014011303)	(New edition due to changes in hydrography)						
18BHA18431 (7642014011562)	Rosario Strait to Cherry Point	25,000	<u>5</u>	5/02	NOS	1-98	30/02
(7012011011302)	(New edition due to changes in hydrography)						
18ACO18441 (7642014011493)	Puget Sound-Northern Part	80,000	<u>42</u>	<u>5/02</u>	NOS	1-98	30/02
(70.2011011155)	(New edition due to numerous Notice to Mariners corrections)						
18AHA18471 (7642014011522)	Dungeness to Oak Bay	40,000	<u>8</u>	1/02	NOS	1-98	13/02
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(New edition due to numerous Notice to Mariners and general changes)						
18AHA18474 (7642014012197)	Shilshole Bay to Commencement Bay	40,000	7	<u>8/02</u>	NOS	1-98	45/02
(7042014012197)	(New edition due to numerous Notice to Mariners changes and changes in hydrography)						
18ACO18480 (7642014011492)	Approaches to Strait of Juan de Fuca (LORAN-C)	176,253	<u>28</u>	4/02	NOS	1-98	28/02
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Inset: Quillayute River Entrance (New edition due to numerous Notice to Mariners corrections)	10,000					
18ACO18500 (7642014011495)	Columbia River to Destruction Island (LORAN-C)	180,789	<u>28</u>	<u>2/02</u>	NOS	1-98	19/02
(11111111111111111111111111111111111111	(New edition due to various general changes)						
18BHA18502 (7642014011574)	Grays Harbor, Washington	40,000	<u>84</u>	6/02	NOS	1-84,98	30/02
(Continuation: Continuation of Chehalis River Inset: Westhaven Cove (New edition due to numerous Notice to Mariners corrections)	<u>40,000</u> <u>10,000</u>					
18BHA18521	Columbia River-Pacific Ocean to Harrington Point	40,000	<u>69</u>	6/02	NOS	1-98	34/02
(7642014011573)	Inset: Ilwaco Harbor (New edition due to numerous Notice to Mariners corrections)	20,000					
18BHA18524	Columbia River-Crims Island to Saint Helens	40,000	<u>33</u>	2/02	NOS	1-98	18/02
(7642014011578)	(New edition due to numerous Notice to Mariners corrections)						
18XHA18528 (7642014011613)	Willamette River-Portland to Walnut Eddy	15,000	<u>10</u>	10/02	NOS	1-98	52/02

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	es that column in which a correction has been made or new information added.			dition	Delici		
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
	(New edition due to numerous Notice to Mariners corrections and changes in format-formerly Chart 18528, Side A only)						
18XHA18529	Willamette River-Walnut Eddy to Newberg	15,000	<u>10</u>	9/02	NOS	1-84,85,	52/
(7642014627130)	Upper Panel 45 15 37N 122 50 35W 45 16 36N 122 40 32W 45 19 26N 122 41 12W 45 18 12N 122 51 12W Lower Panel 45 15 46N 123 00 30W 45 13 51N 122 50 43W 45 16 37N 122 49 45W 45 18 32N 122 59 27W (New edition due to numerous Notice to Mariners corrections and changes in format-formerly Chart 18528, Side B only)					98	
18XHA18541	Columbia River-McNary Dam to Juniper	20,000	<u>8</u>	3/02	NOS	1-98	21/
(7642014011621)	(Not shown on index) (New edition due to various general changes)	,,,,,,					
18XHA18558	Tillamook Bay	20,000	<u>37</u>	2/02	NOS	1-98	19/
(7642014011634)	(New edition due to numerous Notice to Mariners corrections)						
18BHA18581 (7642014011582)	Yaquina Bay and River	10,000	<u>17</u>	9/02	NOS	1-98	49/
(7042014011362)	Continuation of Yaquina River (New edition due to numerous Notice to Mariners corrections)	25,000					
18ACO18600 (7642014011500)	Trinidad Head to Cape Blanco (LORAN-C)	196,948	<u>14</u>	1/02	NOS	1-98	15.
(7042014011300)	(New edition due to various general changes)						
18ACO18620 7642014011497)	Point Arena to Trinidad Head (LORAN-C)	200,000	<u>23</u>	6/02	NOS	1-98	35
,,	Insets: Shelter Cove Rockport Landing (New edition due to various general changes)	20,000 10,000					
18AHA18650	San Francisco Bay	20,000	<u>51</u>	4/02	NOS	1-98	28
(7642014011523)	Continuation to San Leandro Bay (New edition due to numerous Notice to Mariners and general changes)	20,000					
18AHA18654	San Pablo Bay	40,000	<u>42</u>	4/02	NOS	1-98	28
7642014011525)	Continuation: Petaluma River (New edition due to Notice to Mariners and general changes)	40,000					
18AHA18655 7642014011528)	Mare Island Strait	10,000	<u>58</u>	12/01	NOS	1-86,98	10
, 042014011320)	Extension: Mare Island Strait (New edition due to various general changes)	10,000					
18AHA18666 7642014592255)	Suisun Bay-Middle Ground to New York Slough	<u>10,000</u>	1	11/01	<u>NOS</u>	1-86,98	9/
70.201.092200,	(Not shown on index)						
18BHA18703	Estero Bay	40,000	<u>24</u>	1/02	NOS	1-99	13
7642014011593)	Insets: Morro Bay Estero Bay Mooring Area (New edition due to various general changes)	10,000 15,000					
18BHA18758	Del Mar Boat Basin	5,000	<u>6</u>	6/02	NOS	1-99	35.
(7642014011603)	(New edition due to numerous general changes)						
18ACO18765 (7642014011509)	Approaches to San Diego Bay (LORAN-C)	100,000	<u>15</u>	<u>2/02</u>	NOS	1-99	18

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

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NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
	Inset: Mission Bay (New edition due to numerous Notice to Mariners corrections)	20,000					
18ACO18774	Gulf of Santa Catalina (LORAN-C)	100,000	<u>10</u>	6/02	NOS	1-87,99	35/02
(7642014011506)	Inset: Delmar Boat Basin (New edition due to various general changes)	15,000					
19ACO19010	Hawaiin Islands-Southern Part	675,000	<u>17</u>	8/02	NOS	1-99	45/02
(7642014011655)	(New edition due to numerous Notice to Mariners corrections)						
19ACO19357 (7642014011663)	Island of Oahu	80,000	22	8/02	NOS	1-99	42/02
(7042014011003)	Inset: Barbers Point Harbor (New edition due to various general changes)	20,000					
19AHA19358	Waimanalo Bay to Diamond Head	20,000	<u>20</u>	4/02	NOS	1-99	28/02
(7642014011668)	(New edition due to numerous Notice to Mariners corrections)						
19AHA19366 (7642014011674)	Pearl Harbor	15,000	<u>36</u>	1/02	NOS	1-99	13/02
(7042014011074)	(New edition due to changes in hydrography)						
19XHA19385 (7642014011710)	Haena Point to Kepuhi Point	20,000	7	<u>2/02</u>	NOS	1-92,99	20/02
(7042014011710)	(New edition due to various general changes)						
	REGION 2						
22ACO22170 (7642014012504)	Callao to Punta del Infiernillo	300,000	<u>3</u>	<u>8/01</u>	A	2-12,62	13/02
22AHA22172 (7642014011805)	Bahia del Callao	12,500	<u>8</u>	10/02	A	2-62	48/02
22AHA22173 (7642014011801)	Approaches to Callao	75,000	<u>36</u>	10/02	A	2-62	48/02
22XCO22331 (7642014476604)	Chile 716, Chile-Islas Desertores A Isla Guaitecas 44 00 00S 75 10 00W 42 36 30S 72 40 00W	200,000	2	2/88	DS	2-21	1/03
22XCO22406 (7642014476636)	Chile 911, Chile-Acceso Oceanico a Canal Concepcion	200,000	1	1/53	DS	2-22	1/03
23XHA23126 (7642014476553)	Canal Pricipal-Bahia Blanca, De Baliza Chica A Rada Puerto Belgrano	25,000	<u>6</u>	1/01	DS	2-28,62	24/02
23XCO23127 (7642014476554)	Bahia Blanca-Canal Principal-Ingeniero White, De Baliza Tripode A Puerto Cuatreros	40,000	4	1/01	DS	2-28,62	24/02
23XHA23128 (7642014476556)	Bahia Blanca-Puertos Belgrano Y Rosales	7,500	4	1/00	DS	2-28,62	24/02
23XHA23129 (7642014476558)	De Puerto Ingeniero White A Puerto Galvan	7,500	2	1/00	DS	2-28,62	24/02
25BHA25484 (7642014012049)	Saint Vicent to Bequia	60,000	<u>23</u>	1/98	A	2-42,43, 63	11/02
25ACO25640	Puerto Rico and Virgin Islands	326,856	<u>40</u>	4/02	NOS	2-63	28/02
(7642014012008)	(New edition due to numerous Notice to Mariners corrections)						
25AHA25645	Christiansted Harbor	10,000	<u>17</u>	1/02	NOS	2-63	15/02
(7642014012026)	(New edition due to various general changes)						
25ACO25650 (7642014012010)	Virgin Passage and Sonda de Vieques	100,000	<u>33</u>	3/02	NOS	2-63	22/02
(7642014012010)	(New edition due to various general changes)						

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NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
25AHA25663	Pasaje de San Juan to Puerto de Humacao	40,000	<u>27</u>	2/02	NOS	2-63	19/02
(7642014012029)	(New edition due to numerous Notice to Mariners corrections)						
25ACO25668 (7642014012017)	North Coast of Puerto Rico	100,000	<u>18</u>	1/02	NOS	2-63	15/02
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Insets: Puerto Palmas Atlas Puerto Arecibo	10,000 20,000					
	(Insets not shown on index) (New edition due to various general changes)						
25AHA25670 (7642014012038)	Bahia de San Juan	10,000	<u>41</u>	4/02	NOS	2-63	26/02
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(New edition due to numerous Notice to Mariners corrections)						
26ACO26303 (7642014012087)	Canceled					2-50,53, 64	13/02
26XCO26305 (7642014012129)	Canceled					2-50,53, 64	13/02
26XNR26327 (7642014621356)	Fleet Operating Areas-Vicinity North of Berry Island	36,000	2	7/02	DS	2-64	41/02
28XCO28110 (7642014011804)	Laguna de Perlas to Rio Colorado	175,000	2	9/01	A	2-64	15/02
	REGION 3						
36BHA36062	<u>Dublin Bay</u>	25,000	<u>11</u>	9/01	A	3-16,30	40/02
(7642014012379)	Plan: Howth	<u>7,500</u>					
37BHA37064 (7642014012466)	Approaches to Portland and Weymouth	20,000	<u>8</u>	9/01	A	3-30	17/02
37BHA37065 (7642014012467)	Portland Harbour	10,000	7	9/01	*A	3-30	19/02
(7042014012407)	Plan: Portland Port Berthing Plan	5,022					
	REGION 4						
43BCO43281 (7642014012744)	Haugsholmen to Alesund	50,028	<u>6</u>	2/98	A	4-12,24	20/02
(7042014012744)	Plan: Eggsbonesstraumen and Fosnavag	<u>19,981</u>					
44BHA44401 (7642014012888)	Riga	25,000	7	9/01	A	4-21,25	13/02
	REGION 5						
51ACO51002 (7642014012894)	Arquipelago dos Acores	750,000	7	10/01	A	5-2,42	13/02
51BHA51103 (7642014012950)	Approaches to Vigo 42 08 38N 8 59 29W 42 18 38N 8 39 23W	25,000	<u>10</u>	5/02	A	5-28,31, 42	29/02
51BHA51104 (7642014878666)	Puerto Vigo 42 13 17N 8 47 41W 42 17 38N 8 39 05W	10,000	<u>1</u>	5/02	<u>A</u>	5-28,31, 42	29/02
51AHA51143 (7642014015221)	Entrances to Porto de Lisboa and Baia de Cascais	15,000	4	12/01	A	5-28,42	14/02
51AHA51144 (7642014007159)	Porto de Lisboa-Paco de Arcos to Terreiro do Trigo	<u>15,000</u>	<u>3</u>	12/01	A	5-28,42	14/02
53BHA53106 (7642014013067)	Golfo Della Spezia	25,000	<u>6</u>	5/00	A	5-22,42	19/02

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NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
53AHA53111 (7642014006716)	Civitavecchia 42 05 06N 11 44 30E 42 07 53N 11 48 07E (Plan A, San Remo, has been permanently discontinued)	<u>5,000</u>	<u>3</u>	5/02	A	5-16,17, 22,25,42	44/02
53AHA53162	Approaches to Pozzuoli and Napoli		7	9/02	A	5-18,42	50/02
(7642014013045)	Panels: A. Golfo di Pozzuoli B. Rada di Napoli	15,000 15,000					
53ACO53183 (7642014013036)	Stretto di Messina	40,000	<u>13</u>	<u>3/01</u>	A	5-18,42	19/02
54ACO54090 (7642014251243)	Entrance to the Adriatic Sea	250,000	<u>3</u>	9/02	A	5-42	46/02
54ACO54095 (7642014251084)	Dubrovnik to Otok Drvenik Mali and Punta Torre Canne to Punta Pietre Nere	250,000	<u>3</u>	9/02	A	5-42	46/02
54ACO54105 (7642014251082)	Otok Lastovo to Otok Zirje and Punta San Francesco to Ancona	250,000	<u>3</u>	8/02	A	5-42	46/02
54ACO54115	Otok Drvenik Mali to Otok Susak and Porto d'Ascoli to Porto Corsini	250,000	<u>3</u>	<u>8/02</u>	A	5-16,42	46/02
(7642014251186)	Plan: Luka Telascica	50,000					
54ACO54125 (7642014251093)	Gulf of Venice including Kvarner and Adjacent Waters	250,000	<u>3</u>	8/02	A	5-43	46/02
54ACO54279 (7642014006210)	Nisos Kerkyra and Approaches	150,000	<u>4</u>	9/02	<u>A</u>	5-12,43	50/02
54BHA54422 (7642014011483)	Approaches to Aksaz Limani 36 42 16N 28 22 07E 36 53 11N 28 34 10E	20,000	4	1/02	A	5-12,15, 43	19/02
54BHA54423 (7642014012935)	Antalya	<u>75,000</u>	<u>5</u>	<u>8/02</u>	A	5-4,43	48/02
(7042014012933)	Plan: Antalya	<u>15,000</u>					
56BHA56067 (7642014009374)	Ashdod and Ashqelon		<u>3</u>	8/02	A	5-43	48/02
(7042014009374)	Panels: A. Ashdod B. Ashqelon	20,000 20,000					
56XHA56195 (7642014014416)	Approaches to As Sidr and Ra's al Unuf	40,000	<u>3</u>	3/02	A	5-43	22/02
	REGION 6						
62AHA62193 (7642014013363)	Bahr el-Qulzum (Suez Bay)	15,000	<u>17</u>	1/02	A	6-10,24	17/02
62AHA62194	Approaches to Bahr el-Qulzum (Suez Bay)	50,000	<u>8</u>	1/02	A	6-24	17/02
(7642014013364)	Plan: Ain Sukhna	25,000					
62AHA62225	Elat and Al'Aqabah	<u>25,000</u>	<u>3</u>	2/02	A	6-10,11,	17/02
(7642014011115)	Plan: Al'Aqabah-Main Port 29 30 45N 34 90 00E	<u>10,000</u>				24	
62AHA62313 (7642014013369)	Port Salalah (Mina Raysut) and Approaches	75,000	4	<u>1/02</u>	A	6-12,13, 24	17/02
(7042014013309)	Plans A: Bandar Raysut B: Port Salalah (Mina Raysut) 16 56 30N 53 00 15E	25,000 10,000				24	
62ACO62392 (7642014013345)	Strait of Hormuz	150,000	7	12/01	A	6-24	14/02
62AHA62431 (7642014013372)	Jazireh-ye Khark	40,000	<u>8</u>	3/02	A	6-24	26/02

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Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
62AHA62434 (7642014013379)	Approaches to Khawr 'Abd Allah and Shatt Al' Arab	55,000	9	12/01	A	6-24	12/02
62AHA62464 (7642014014255)	Mina Jabal Ali	10,000	2	12/01	A	6-24	15/02
62AHA62498 (7642014013385)	Approaches to Mina' Jabal 'Ali, Dubayy and Ash Shariqah Including Fateh Oil Terminal Inset: Fateh Oil Terminal	75,000 50,000	4	12/01	A	6-20,24	12/02
62AHA62499 (7642014013386)	Approach to Mina Jabal Ali	30,000	4	12/01	A	6-20,24	15/02
62ACO62540 (7642014006725)	Jazireh-ye Farsi and Al Mish'ab to the Mouth of the Khowr-e Musa	350,000	<u>6</u>	1/02	A	6-24	17/02
62ACO62541 (7642014199128)	Jazireh-ye Farsi and Al Mish'ab to the Mouth of the Khowr-e Musa	350,000	<u>3</u>	1/02	DS	6-24	17/02
62ACO62570 (7642014015100)	Jazirat Umm Al Maradim to Shatt al 'Arab including Al Kuwayt	200,000	4	1/02	A	6-12,24	17/02
63ACO63040 (7642014013434)	Gwadar to Ra's Malan	300,000	2	12/01	A	6-14,25	12/02
63AHA63053 (7642014013436)	Approaches to Karachi	75,000	4	12/01	A	6-25	12/02
63AHA63054 (7642014013441)	Karachi Harbor	15,000	<u>3</u>	11/01	A	6-25	19/02
63BCO63230 (7642014013450)	South Coast of Sri Lanka	312,620	<u>6</u>	8/01	A	6-16,25	17/02
63BCO63250 (7642014013447)	Palk Strait and Gulf of Mannar	310,350	<u>6</u>	10/01	A	6-16,25	14/02
	REGION 7						
71BHA71043 (7642014015198)	Port of Phuket	10,000	2	1/02	A	7-4,30	25/02
71AHA71248 (7642014935880)	Approaches to Changi Naval Base 1 14 00N 103 55 30E 1 21 42N 104 06 00E	20,000	2	7/02	<u>DS</u>	7-4,7,30	51/02
71ACO71265 (7642014014983)	Singapore Area	200,000	<u>3</u>	6/02	A	7-4,30	46/02
	REGION 8						
81BHA81092	Pagan Island	25,475	<u>3</u>	<u>7/02</u>	NOS	8-4,22	38/02
(7642014013808)	Inset: Maug Islands (New edition due to various general changes)	26,420					
	REGION 9						
92AHA92210 (7642014013969)	Basilan Strait	100,000	<u>3</u>	3/02	A	9-42	18/02
92BHA92216	Isabela Channel and Approaches	25,000	<u>3</u>	<u>4/02</u>	A	9-42	23/02
(7642014013987)	Plan: Port Basilan (Plan not shown on index)	10,000					
93ACO93160 (7642014010844)	Kuala Terengganu to Laem Khao Phra	242,900	4	11/01	A	9-42	15/02

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	es that column in which a correction has been made or new information added.		Е	dition	Dui a -		
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NT
95AHA95142 (7642014014161)	T'ongyong-hang and Samch'onp'o-hang Plans: A. T'ongyong-hang B. Samch'onp'o-hang (The 8th edition was found to be deficiant and not announced in the Notice to Mariners)	10,000 10,000	9	12/01	A	9-24,43	15/0
95BHA95276 (7642014014196)	Kanazawa-ko	10,000	<u>3</u>	12/97	A	9-26,43	21/
96AHA96521 (7642014014253)	Plans on the East Coast of Poluostrov Kamchatka Plans A: Bukhta Vilyuchinskaya B: Bukhta Russkaya C: Bukhta Vestnik D: Bukhta Morzhovaya E: Bukhta Bechevinskaya	35,130 35,130 30,110 35,130 35,130	<u>3</u>	3/98	<u>A</u>	9-2,5,43	19/
96ACO96800 (7642014014234)	Ostrov Urup and Approaches	242,465	<u>4</u>	2/98	A	9-43	19/
97BHA97141 (7642014014345)	Kisarazu Ko	15,000	<u>5</u>	12/01	A	9-43	13/
97AHA97144 (7642014014298)	Uraga-suido	25,000	<u>14</u>	6/02	A	9-43	44/
97AHA97146 (7642014014299)	Yokosuka	11,000	<u>10</u>	2/02	A	9-34,43	44/
97XHA97148 (7642014014392)	<u>Negishi</u>	11,000	9	3/02	A	9-34,43	21/
	MISCELLANEOUS CHARTS AND PUBLICATIONS						
DNCDX001 (7644014408230)	South Atlantic Ocean		<u>16</u>	9/02	DS	10-43	46
DNCDX002 (7644014482121)	East Africa		7	8/02	DS	10-43	42
DNCDX003 (7644014398358)	Indian Ocean		9	6/02	DS	10-43	34
DNCDX004 (7644014482124)	Western Australia		<u>5</u>	7/02	DS	10-43	38
DNCDX005 (7644014482129)	Eastern Australia		<u>8</u>	9/02	DS	10-43	47
DNCDX007 (7644014578371)	South America		<u>14</u>	9/02	DS	10-43	46
DNCDX008 (7644014354834)	Southern Europe		<u>17</u>	9/02	DS	10-43	46
DNCDX009 (7644014332876)	Central Mediterranean		<u>15</u>	9/02	DS	10-43	46
DNCDX010 (7644014381568)	Middle East		<u>11</u>	8/02	DS	10-43	42
DNCDX011 (7644014499671)	South China Sea		7	9/02	DS	10-43	45
DNCDX012 (7644014474190)	Japan/North Pacific		<u>12</u>	8/02	DS	10-43	42
DNCDX013 (7644014414461)	North America West		<u>13</u>	8/02	DS	10-43	45
DNCDX014 (7644014337948)	Central America/Caribbean Sea		<u>19</u>	8/02	DS	10-43	42

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
DNCDX015 (7644014337963)	Gulf of Mexico/Straits of Florida		<u>22</u>	9/02	DS	10-43	46/02
DNCDX016 (7644014337966)	Bahamas/Bermuda		<u>17</u>	9/02	DS	10-43	45/02
DNCDX017 (7644014337969)	Eastern United States		<u>30</u>	<u>6/02</u>	DS	10-43	34/02
DNCDX018 (7644014562137)	Northeastern United States/Canada		<u>15</u>	9/02	DS	10-43	45/02
DNCDX019 (7644014562140)	Greenland/Iceland/United Kingdom		7	8/02	DS	10-43	42/02
DNCDX021 (7644014624539)	Norway		<u>4</u>	8/02	DS	10-43	42/02
DNCDX022 (7644014609963)	Barents Sea		<u>3</u>	9/02	DS	10-43	46/02
DNCDX023 (7644014360296)	Northern Asia		<u>8</u>	9/02	DS	10-43	46/02
DNCDX025 (7644014482141)	Gulf of Alaska		9	9/02	DS	10-43	46/02
DNCDX026 (7644014421035)	British Columbia		<u>12</u>	<u>8/02</u>	DS	10-43	42/02
DNCDX027 (7644014482142)	Arctic Ocean		<u>6</u>	<u>7/02</u>	DS	10-43	36/02
DNCDX028 (7644014656924)	Canada		<u>5</u>	10/02	DS	10-43	1/03
<u>DNCDXVDU</u> (7644014946812)	Digital Nautical Chart (DNC) - VPF Database Update (VDU)		<u>8</u>	10/02	<u>DS</u>	10-36, 43	52/02
WOPGN530 (7642014009484)	San Diego to Aleutian Islands and Hawaiian Islands (LORAN-C) (New edition due to numerous Notice to Mariners corrections)	4,860,700	<u>30</u>	2002	NOS	10-40	22/02
WOPGN531 (7642014009485)	Strait of Juan de Fuca to Kodiak Island (LORAN-C)	2,100,000	<u>21</u>	2002	NOS	10-40	18/02
MINI C1114A	(New edition due to numerous Notice to Mariners corrections) Tampa Bay to Cape San Blas (LORAN-C)	456,394		2001	NOS	10-25	9/02
MINLS1114A (7642014007890)	(New edition due to various general changes)	430,394		2001	NOS	10-23	9/02
MINLS1115A	Cape St. George to Mississippi Passes (LORAN-C)	456,394		2002	NOS	10-25	1/03
(7642014007891)	(New edition due to numerous Notice to Mariners corrections)						
MINLS1117A (7642014007888)	Galveston to Rio Grande (LORAN-C)	460,732		2002	NOS	10-25	28/02
(7042014007000)	(New edition due to numerous Notice to Mariners corrections and changes in hydrography)						
<u>AIRALMANAC301</u> (7641014923969)	Air Almanac 2003				GPO	10-23	44/02
CATP2V01U (7642014015264)	Hydrographic Products, Part 2-Volume 1, Nautical Charts and Publications, April 2002 The eleventh edition was found to deficient and not announced in the Notice to Mariners.				<u>GPO</u>	10-22	1/03
COMDTM165021 (7642014007288)	Light List (Vol. I)-Atlantic Coast (St. Croix River, Maine to Shrewsbury River, New Jersey), 2002				GPO	10-25	30/02
COMDTM165022 (7642014014635)	Light List (Vol. II)-Atlantic Coast (Toms River, New Jersey to Little River, South Carolina), 2002				GPO	10-25	16/02

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

Note: Underlining indicat	es that column in which a correction has been made or new information added.		Е	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
COMDTM165023 (7642014011219)	Atlantic and Gulf Coast (Little River, South Carolina to Econfina River, Florida includes Puerto Rico and the U.S. Virgin Islands), 2002				GPO	10-25	35/02
COMDTM165024 (7642014011223)	Light List (Vol. IV)-Gulf of Mexico (Econfina River, Florida to Rio Grande River, Texas), 2002				GPO	10-25	30/02
COMDTM165025 (7642014011120)	Light List (Vol. V)-Mississippi River System, 2002				GPO	10-25	16/02
COMDTM165026 (7642014007846)	Light List (Vol. VI)-Pacific Coast and Pacific Islands, 2002				GPO	10-25	35/02
COMDTM165027 (7642014010834)	Light List (Vol. VII)-Great Lakes (United States and Canada), 2002				GPO	10-25	16/02
LLPUB111 (7642014007532)	The West Coasts of North and South America (Excluding Continental U.S.A. and Hawaii), Australia, Tasmania, New Zealand, and the Islands of the North and South Pacific Oceans, 2002				GPO	10-22	35/02
LLPUB113 (7642014007535)	The West Coasts of Europe and Africa, the Mediterranean Sea, Black Sea and Azovskoye More (Sea of Azov), 2002				GPO	10-22	45/02
LLPUB114 (7642014007536)	British Isles, English Channel and North Sea, 2002				GPO	10-22	13/02
LLPUB115 (7642014007539)	Norway, Iceland and Arctic Ocean, 2002				GPO	10-22	39/02
LLPUB116 (7642014007540)	Baltic Sea, with Kattegat, Belts and Sound and Gulf of Bothnia, 2002				GPO	10-22	18/02
NAUTALMANAC03 (7642014923973)	Nautical Almanac 2003				GPO	10-23	44/02
NMSUMV1 (7642014008422)	(Volume 1) East Coast of North and South America (Subregions 11 thru 15 and 23 thru 28)			2002	GPO	10-23	48/02
NMSUMV2 (7642014008427)	(Volume 2) Eastern Atlantic and Arctic Oceans, including the Mediterranean Sea (Regions 3, 4 and 5)			2002	GPO	10-23	16/02
NMSUMV3 (7642014008428)	(Volume 3) Eastern Pacific, Antarctica, Indian Ocean and Australasia (Subregions 16 thru 19, 21, 22 and 29, Regions 6 and 7)			2002	GPO	10-23	28/02
NMSUMV4 (7642014008429)	(Volume 4) Western Pacific Ocean (Regions 8 and 9)			2002	GPO	10-23	33/02
NMSUMV5 (7642014008425)	(Volume 5) World and Ocean Basin Charts, U.S. Coast Pilots, Sailing Directions, Fleet Guides and Other Publications			2002	GPO	10-23	41/02
NOSPBCP4 (7642014008449)	No. 4 Cape Henry to Key West, 2002				NOS	10-25	49/02
NOSPBCP6 (7642014008454)	No. 6 Great Lakes, 2002				NOS	10-25	19/02
NOSPBCP7 (7642014008455)	No. 7 Pacific Coast: California, Oregon, Washington, and Hawaii, 2002				NOS	10-25	1/03
NOSPBCP9 (7642014008452)	No. 9 Cape Spencer to Beaufort Sea, 2002				NOS	10-25	12/02
<u>NVPUB109</u> (7642014008466)	Atlas of Pilot Charts-Indian Ocean, 2001				GPO	10-22	49/02
NVPUB9 (7642014014652)	The American Practical Navigator, 2002				GPO	10-22	36/02
RAPUB117 (7642014010071)	Radio Navigational Aids, 2002				GPO	10-22	50/02

NIMA HYDROGRAPHIC PRODUCTS CATALOG CORRECTIONS

CUMULATIVE NIMA CATALOG CORRECTIONS FOR VOLUME I (12th Ed.) FROM NOTICE TO MARINERS 8/02 THROUGH 1/03

Note: Underlining indicat	es that column in which a correction has been made or new information added.		E	dition			
NIMA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date	Price Category	Page(s)	NTM
SDPUB126 (7642014009018)	Pacific Islands (Enroute), 2002				GPO	10-19	39/02
SDPUB154 (7642014009031)	British Columbia (Enroute), 2002				GPO	10-19	17/02
SDPUB159 (7642014009034)	Japan-Volume II (Enroute), 2002				GPO	10-19	42/02
SDPUB160 (7642014009035)	South Atlantic Ocean and Indian Ocean (Planning Guide), 2002				GPO	10-19	47/02
SDPUB161 (7642014009032)	South China Sea and Gulf of Thailand (Enroute), 2002				GPO	10-19	23/02
SDPUB163 (7642014009033)	Borneo, Jawa, Sulawesi, and Nusa Tenggara (Enroute), 2002				GPO	10-19	18/02
SDPUB173 (7642014009043)	India and the Bay of Bengal (Enroute), 2002				GPO	10-19	50/02
SDPUB180 (7642014009041)	Arctic Ocean (Planning Guide), 2002				GPO	10-19	32/02
SDPUB181 (7642014009047)	Greenland and Iceland (Enroute), 2002				GPO	10-19	38/02
SDPUB195 (7642014009049)	Gulf of Finland and Gulf of Bothnia (Enroute), 2002				GPO	10-19	33/02
SDPUB200 (7642014007893)	Antarctica (Planning Guide & Enroute), 2002				<u>GPO</u>	10-19	38/02
TOD001400 (7644014853366)	Central America/Caribbean Sea		1	<u>3/02</u>	<u>DS</u>	10-36, 43	48/02
<u>TOD0X015</u> (7644014853365)	Gulf of Mexico/Straits of Florida		1	<u>4/02</u>	<u>DS</u>	10-36, 43	44/02
<u>TOD0X016</u> (7644014853367)	Bahamas/Bermuda		1	<u>5/02</u>	<u>DS</u>	10-36, 43	48/02
<u>TOD0X018</u> (7644014853369)	Northeastern United States/Canada		1	<u>6/02</u>	<u>DS</u>	10-36, 43	48/02
<u>TOD0X021</u> (7644014853370)	Norway		1	6/02	<u>DS</u>	10-36, 43	48/02
<u>TOD0X022</u> (7644014853374)	Barents Sea		1	<u>4/02</u>	<u>DS</u>	10-36, 43	44/02
TOD0X026 (7644014853372)	British Columbia		1	4/02	<u>DS</u>	10-36, 43	44/02

Price Categories effective 1 October 2002

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NAVIGATION PUBLICATIONS

NIMA HYDRO CATALOG CORRECTIONS

NIMA HYDRO CATALOG

12 Ed 2002 NEW EDITION (DLIS) 1/03

SAILING DIRECTIONS CORRECTIONS

PUB 153 9 Ed 2000 LAST NM 52/02

Page 78—Line 42/R; read:

Two sets of range lights lead through the harbor entrance. The first set is in line bearing 047°; it has been reported (2002) that the sensitivity of the range is such that it is difficult to determine if the vessel is right or left of the range. The second set is in line bearing 037°, although it has been reported (2002) that the rear structure is obscured by buildings and vegetation.

(PUBS 033/02; PUBS 041/02) 1/03

PUB 172 9 Ed 2001 LAST NM 24/02

Page 250—Line 29/L; read:

should be used with caution. A recent survey suggests a controlling depth of 7.0m may be more appropriate. The deep center portion of the channel is approximately 9.0m but is just 50-75m wide.

(NTM 044/2002) 1/03

PUB 195 7 Ed 2002 LAST NM 52/02

Page 24—Line 49/L; read:

Pilotage.—Pilotage is provided by Helsinki, see paragraph 2.9

Regulations.—Vessels should send the following information to the port (Fortum Harbour) 72 hours prior to arrival:

- 1. Vessel's name and nationality.
- 2. Master's name.
- 3. Owner or operator of vessel.
- 4. Telex, fax, and telephone number of vessel.
- 5. Draft fore and aft.
- 6. Port of departure.
- 7. Confirmed ETA.
- 8. Quantity, type, IMO class, and UN number of cargo.
 - 9. Quantity, type, and IMO class of cargo to be loaded.
 - 10. Three previous cargoes.
- 11. If cargo tanks are inerted and confirmation that oxygen content is below 8 per cent.
 - 12. Thrusters, bow or stern (number and effect).
 - 13. All equipment functioning well.
- 14. Quality and quantity of contained ballast water or mixtures containing oil or chemicals to be discharged.
 - 15. Quality and quantity of waste to be discharged.
 - 16. Quality and quantity of bunkers to be loaded.
 - 17. Any measures subject to permission.
- 18. List of equipment relating to navigation, safety, or cargo handling not in working order.

19. If vessel is ready to load or discharge upon arrival. Vessels should confirm the ETA 24 hours in advance and state the vessel's name and nationality, nrt, draft fore and aft, ETA at pilot boarding position, and date and time of the no-

Any change to the ETA must be forwarded immediately. (BA NP 286) 1/03

Page 55—Line 19/L; read:

best be seen on the chart.

It is reported (2002) that less depths than charted exist within the main entrance channel leading from seaward into Oregrunds Skargard through Jossans Inlopp. The local authorities should be contacted for the latest information concerning maximum authorized drafts.

(BA NP 20) 1/03

Page 55—Line 39/R; read:

Caution.—It is reported (2002) that less depths than charted exist within the entrance channel leading to Kallero and the local authorities should be contacted for the latest information concerning maximum authorized drafts.

A restricted area extends SE from the harbor at (BA NP 20) 1/03

Page 69—Line 40/R; read:

12m, mud, SW of Skarnas Terminal.

Caution.—It is reported (2002) that less depths than charted exist within the entrance channel leading to Skarnas Terminal and the local authorities should be contacted for the latest information concerning maximum authorized drafts.

(BA NP 20) 1/03

Page 114—Line 15/R; read:

spring freshets.

It is reported (2002) that less depths than charted exist within the entrance channels leading to Pitea and the local authorities should be contacted for the latest information concerning maximum authorized drafts.

(BA NP 20) 1/03

COAST PILOT CORRECTIONS

COAST PILOT 7 34 Ed 2002 NEW EDITION (NOS) 1/03

		CORRI	ECTIONS TO C. G. LIC	GHT LIST, VO	DLUME I L	IGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
485	Race Point Light	42 03 45 N 70 14 35 W	FI W 10s	41	16	On white tower.	Obscured from 220° to 292°. Emergency light of reduced intensity when main light is extinquished.
							* 1/03
10580	WHITE ROCKS LIGHT 7 125 feet outside channel limit.	42 25 34 N 70 57 14 W	FI G 2.5s	49	6	SG on multi-pile.	Higher intensity beam up and down channel.
					*		1/03
10585	BLACK ROCKS LIGHT 9	42 25 59 N 70 56 53 W	FIG 6s	49	6	SG on multi-pile.	Higher intensity beam up and down channel.
					*		1/03
10595	SANDY POINT LIGHT 11 75 feet outside channel limit.		FI G 2.5s	45	6	SG on multi-pile.	Higher intensity beam up and down channel.
					*		1/03
10615	BLACK MARSH CHANNEL LIGHT 15	42 26 54 N 70 56 31 W	FIG 4s	44	6	SG on multi-pile.	Higher intensity beam up and down channel.
					*		1/03
21500	HART ISLAND LIGHT 46	40 50 42 N 73 46 00 W	FIR 4s	23	6	TR on skeleton tower, concrete base on rocks.	
		*					1/03
22520	Lynde Point Light	41 16 17 N	F W	71	14	White stone tower.	
		72 20 35 W *					1/03
	DUCK ISLAND TO MADISON	REEF (Chart 123	374)				
	Duck Island Roads	·	•				
23395	DUCK ISLAND NORTH BREAKWATER LIGHT	41 15 37 N 72 28 30 W	FI W 4s	22	7	NR on skeleton tower.	
		*					1/03
	Patchogue River						
23405	- BREAKWATER LIGHT 3A	41 16 08 N 72 28 23 W	FIG 4s	21	4	SG on skeleton tower.	
		*					1/03
24360	- BREAKWATER LIGHT 2A	41 09 39 N	FIR 4s	27	5	TR on skeleton tower.	
		73 05 35 W *					1/03
24635	TONGUE POINT LIGHT	41 10 00 N	FLG 4s	31	5	Black conical tower.	1703
2 1055	. SHOOL I SHIT LIGHT	73 10 39 W		31	J	Diask soriiour towor.	
		*					1/03

		CORRI	ECTIONS TO C. G. LIG	GHT LIST, VO	DLUME I L	IGHT LIST, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
24930	PECK LEDGE LIGHT	41 04 39 N 73 22 11 W	FI G 2.5s	61	7	White conical tower, middle part brown, on black cylindrical pier.		1/03
25365	JONES ROCK LIGHT 3 On rocks.	40 59 18 N 73 38 04 W	FIG 4s	25	5	SG on skeleton tower.		
25965	GLEN ISLAND LIGHT 15	* 40 53 22 N 73 46 49 W	FI G 4s	20	5	SG on tower on concrete base.		1/03
26145	PORT JEFFERSON WEST BREAKWATER LIGHT 2A	* 40 58 14 N 73 05 36 W	FIR 4s	26	5	TR on skeleton tower.		1/03
	Huntington Harbor	*						1/03
26530	- LIGHT	40 54 39 N 73 25 52 W	Iso W 6s	42	9	Square concrete tower attached to dwelling on rectangular pier.		1/02
27110	BAR BEACH LIGHT 11	40 49 55 N 73 39 11 W	FIG 4s	26	4	SG on skeleton tower.		1/03
27265	SOUTH BROTHER ISLAND LIGHT SB	* 40 47 51 N 73 53 53 W	FI W 2.5s	20	5	NG on skeleton tower.		1/03
27315	ROOSEVELT ISLAND REEF LIGHT 17	* 40 44 46 N 73 57 52 W	FIG 4s	57	6	SG on skeleton tower on white base.	Higher intensity beam up an down stream.	1/03 nd
27515	- LIGHT 12	* 40 45 58 N 73 51 01 W	FIR 4s	13	5	TR on tower on piles.		1/03
27975	LONG BEACH BAR LIGHT	* 41 06 35 N 72 18 21 W	FI W 4s	58	8	White tower and dwelling on piles.		1/03
29730	BROWN POINT EAST BREAKWATER LIGHT 2	* 40 43 22 N 73 04 08 W	FI R 4s	20	4	TR on pile.		1/03
29760	PATCHOGUE BREAKWATER LIGHT 5	* 40 44 46 N 73 01 00 W	FI G 2.5s	21	4	SG on skeleton tower.		1/03
31010	- LIGHT 6	* 40 35 28 N	FI R 4s	12	4	TR on pile.		1/03
		73 33 29 W *						1/03

		CORRI	ECTIONS TO C. G. LIC	GHT LIST, VO	DLUME I L	LIGHT LIST, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
31190	- LIGHT 19	40 36 49 N 73 33 29 W	FI G 2.5s	12	3	SG on pile.		
		*						1/03
31215	- LIGHT 25	40 37 00 N	FI G 2.5s		4	SG on pile.		
		73 25 57 W						4/00
								1/03
	Sloop Channel							
	Oak Island Channel Ruovs maintained from May 1	to Nov. 1 unloss o	athorwise noted					
	Buoys maintained from May 1 Positions of buoys frequently s	hifted with changi	ng conditions.					
31380	- LIGHT SO	40 39 00 N 73 17 29 W	FI (2+1) G 6s	12	3	JG on pile.	Maintained from Apr. 1 to Nov. 15.	
		*						1/03
31500	- BREAKWATER LIGHT	40 34 57 N	FI W 4s	33	6	NR on skeleton tower.		
		73 45 17 W *						1/03
	Reynolds Channel							1/03
31970	- LIGHT 9	40 35 45 N	FIG 4s	12	4	SG on pile.		
0.770	2.6 ,	73 40 26 W			·	00 s.r. p.i.s.		
		*						1/03
		CORRE	ECTIONS TO C. G. LIG	GHT LIST, VO	DLUME II I	LIGHT LIST, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
	Clam Creek							
1240	- Lighted Junction Buoy CC Marks shoal.	39 22 43 N 74 25 02 W	FI (2+1) G 6s		3	Green and red bands.		
		*			*			1/03
7370	- Lighted Buoy 51 75 feet outside channel limit.		FIG 6s		4	Green.	Replaced by can when endangered by ice.	
					*			1/03
10970	Sunset Creek Daybeacon 1					SG on pile.		
	*					*		1/03
10975	Sunset Creek Daybeacon 3						Remove from list.	
							*	1/03

		CORRE	ECTIONS TO C. G. LIC	GHT LIST, VO	DLUME II I	LIGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
-	James River						
11645	- CHANNEL LIGHT 12 135 feet outside channel limit.	37 03 21 N 76 35 29 W	FI R 2.5s	15	4	TR on pile.	Ra ref.
		*					1/03
11660	- CHANNEL LIGHT 16 160 feet outside channel limit.	37 04 21 N 76 36 14 W	FIR 4s	15	4	TR on pile.	
		*		*			1/03
11670	- CHANNEL LIGHT 18 200 feet outside channel limit.	37 04 54 N 76 36 35 W	FIR 4s	15	4	TR on pile.	Ra ref.
		*				*	1/03
	Tylers Beach Channel						
11705	- LIGHT 1 10 feet outside channel limit.	37 04 46 N 76 39 18 W	FI G 2.5s	15	3	SG on multi-pile structure.	Light equipment removed when endangered by ice.
		*				*	1/03
	Hog Island Cutoff						
11875	- Channel Buoy 2	37 09 49 N 76 38 42 W				Red Nun.	
		*					1/03
11890	- Channel Buoy 6	37 12 16 N 76 40 58 W				Red Nun.	
		*					1/03
11893	- Daybeacon 7	37 12 21 N 76 41 27 W				SG on pile.	
		/6 41 2/ W					1/03
11005	CHANNEL LIGHT 2/		FID 4-	15		TD are model with a description	1703
11925	 CHANNEL LIGHT 36 85 feet outside channel limit. 	37 12 13 N 76 38 52 W	FI K 45	15	4	TR on multi-pile structure.	
		*		*		*	1/03
11940	- CHANNEL LIGHT 40 200 feet outside channel limit.	37 12 48 N 76 38 38 W	FIR 4s	18	4	TR on multi-pile structure.	Ra ref.
		*					1/03
	Jamestown Island						
11995	- Daybeacon 2	37 12 34 N 76 42 40 W				TR on pile.	
		70 42 40 W					1/03
							1703

CORRECTIONS TO C. G. LIGHT LIST, VOLUME II LIGHT LIST, 2002										
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks			
	Chickahominy River									
12141	- Channel Daybeacon 1	37 13 44 N 76 49 18 W				SG on pile.				
		*						1/03		
12275	- Wreck Lighted Buoy WR67		QG		3	Green.	Replaced by LIB when			
	*						endangered by ice.	1/03		
12285	- LIGHT 73		FI G 4s	15	5	SG on multi-pile structure.		.,,,,		
.2200	2.6 76			.0	· ·	*		1/03		
12300	- LIGHT 74B	37 18 25 N	FIR 4s	15	3	TR on pile.				
		77 00 23 W *						1/02		
12205	LICUT 740		FIR 6s	15	-	TD on would nile elementure		1/03		
12305	- LIGHT 74C		FIK 0S	15	5	TR on multi-pile structure.		1/03		
12320	- Channel Lighted	37 16 23 N	FI R 2.5s		4	Red.				
	Buoy 76	77 03 16 W								
					*			1/03		
12430	- Channel Lighted Buoy 94	37 18 17 N 77 09 23 W	FIR 4s		4	Red.				
		*						1/03		
12455	- Channel Lighted Buoy 102	37 19 03 N 77 12 01 W	FIR 4s		4	Red.				
	85 feet outside channel limit.									
		*						1/03		
12480	- CHANNEL LIGHT 107	37 18 45 N 77 13 57 W	FIG 6s	15	4	SG on multi-pile structure.	Ra ref.			
		*				*		1/03		
12520	- CHANNEL LIGHT 118	37 19 02 N 77 16 17 W	FIR 4s	14	4	TR on multi-pile structure.				
		*				*		1/03		
	Appomattox River									
12535	- JUNCTION LIGHT AR	37 19 19 N	FI (2+1) G 6s	19	3	JG on multi-pile structure.				
		77 16 47 W *				*		1/03		
12625	- LIGHT 127		FI G 2.5s	15	3	SG on multi-pile structure.		.,,,,		
12020	2.0.11 127		1.02.00	10	J	*		1/03		
12650	- LIGHT 135		FI G 2.5s	15	3	SG on multi-pile structure.				
						*		1/03		

		CORRE	ECTIONS TO C. G. LIG	GHT LIST, VO	DLUME II I	LIGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
12665	- LIGHT 139		FIG 6s	18	4	SG on multi-pile structure.	
						*	1/03
12685	- LIGHT 146		FIR 4s	15	3	TR on multi-pile structure.	
						*	1/03
12695	- LIGHT 150		FIR 4s	18	3	TR on multi-pile structure.	
						*	1/03
12705	- LIGHT 151		QG	15	3	SG on multi-pile structure.	
						*	1/03
12715	- LIGHT 152A		FI R 2.5s	18	3	TR on multi-pile structure.	
						*	1/03
12720	- LIGHT 154		FIR 4s	15	3	TR on multi-pile structure.	
						*	1/03
12745	- LIGHT 156		QR	18	3	TR on multi-pile structure.	
						*	1/03
12750	- LIGHT 157		FIG 4s	18	4	SG on multi-pile structure.	
						*	1/03
12755	- LIGHT 158		FIR 4s	18	3	TR on multi-pile structure.	
						*	1/03
12760	- LIGHT 160		QR	18	3	TR on multi-pile structure.	
						*	1/03
12765	- LIGHT 161		FIG 4s	18	3	SG on multi-pile structure.	
						*	1/03
12785	- LIGHT 165	37 26 10 N 77 25 40 W	FIG 4s	20	4	SG on multi-pile structure.	
						*	1/03
12815	- LIGHT 173		FI G 4s	15	4	SG on multi-pile structure.	
						*	1/03
	CAPE CHARLES TO NORFO	OLK HARBOR (Ch	art 12222)				
	Chesapeake Bay	(,				
12820	Horseshoe Crossing Lighted Whistle	37 01 20 N 76 08 57 W	Mo (A) W		6	Red and white stripes with red spherical topmark.	
	Buoy HC	*					4/02
		^					1/03

		CORRE	ECTIONS TO C. G. LIC	GHT LIST, VO	DLUME II I	LIGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
12945	- CHANNEL LIGHT 9	37 06 37 N 76 17 23 W	FI G 4s	19	4	SG on multi-pile structure.	
		*				*	1/03
13030	- CHANNEL LIGHT 13		FIG 4s	15	4	SG on multi-pile structure.	
						*	1/03
13090	- CHANNEL LIGHT 21		FIG 4s	15	4	SG on pile.	
40005			515 .	*		TD #	1/03
13095	- CHANNEL LIGHT 22		FIR 4s	15	3	TR on pile.	Light equipment removed from Dec. 1 to Mar. 15.
				*			1/03
13100	- CHANNEL LIGHT 25		FI G 2.5s	15	4	SG on multi-pile structure.	
40405	QUANNEL LIQUE OF		51.0.4	45	0	*	1/03
13105	- CHANNEL LIGHT 27		FI G 4s	15	3	SG on multi-pile structure.	Light equipment removed from Dec. 1 to Mar. 15.
						*	1/03
13120	- NORTHWEST BRANCH LIGHT 1		FI G 2.5s	15	3	SG on pile.	Light equipment removed when endangered by ice.
				*			1/03
13125	- NORTHWEST BRANCH LIGHT 3		FIG 4s	15	4	SG on pile.	Light equipment removed when endangered by ice.
				*			1/03
	Poquoson Flats						
13145	- Channel Daybeacon 2PF	37 06 27 N 76 14 46 W				TR on pile.	
		*					1/03
	Poquoson River						
13165	- Junction Lighted Buoy P	37 13 31 N 76 19 30 W	FI (2+1) G 6s		4	Green and red.	
		*					1/03
13185	- ENTRANCE LIGHT 10		FI R 2.5s	15	3	TR on multi-pile structure.	
						*	1/03
13190	- ENTRANCE LIGHT 11		FI G 4s	15	4	SG on multi-pile structure.	4/00
13210	Chieman Crook Daybones 4	27 10 40 N					1/03
13210	Chisman Creek Daybeacon 4	37 10 49 N 76 24 29 W				TR on pile.	
		*					1/03

		CORRE	ECTIONS TO C. G. LIG	GHT LIST, VC	LUME II L	LIGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	Bennett Creek						
13260	- Daybeacon 1	37 09 43 N 76 22 47 W				SG on pile.	
		*					1/03
13290	White House Cove	37 08 46 N				SG on pile.	
13270	Daybeacon 1	76 22 25 W				30 on pile.	
		*					1/03
13295	White House Cove Daybeacon 1A	37 08 39 N 76 22 32 W				SG on pile.	
		*		*			1/03
13320	- LIGHT 4		FIR 4s	18	3	TR on pile.	
						*	1/03
13340	- CHANNEL LIGHT 10		FIR 4s	15	3	TR on pile.	
				*	*		1/03
13365	- CHANNEL LIGHT 16		FIR 4s	15	3	TR on pile.	Light equipment removed when
				*	*		endangered by ice.
4/455	5 " 6 15 "						1/03
16155	Prentice Creek Entrance Daybeacon 1	37 43 42 N 76 19 05 W				SG on pile.	
	*	*					1/03
16160	Prentice Creek Daybeacon 2	37 43 47 N 76 19 22 W				TR on pile.	
		*					1/03
16255	COCKRELL CREEK LIGHT 1		FI G 4s	15	4	SG on pile.	
				*			1/03
16280	- LIGHT 8		FIR 4s	15	3	TR on multi-pile structure.	
				*		*	1/03
16300	- LIGHT 9		FI G 4s	15	4	SG on multi-pile structure.	
						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1/03
	Great Wicomico River						
16330	- LIGHT 10		FIR 4s	15	3	TR on slatted pile structure.	
				*			* 1/03
16335	- LIGHT 11		FIG 4s	15	4	SG on multi-pile structure.	
				*			1/03

		CORRE	ECTIONS TO C. G. LIC	GHT LIST, VO	DLUME II L	LIGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	CHESAPEAKE BAY TO PINE	Y POINT (Chart 1	12233)				
	Little Wicomico River						
16350	- APPROACH LIGHT 2LW	37 53 17 N 76 13 52 W	FI R 2.5s	15	4	TR on pile.	
		*					1/03
16365	- LIGHT 7		FIG 4s	15	4	SG on multi-pile structure.	
						*	1/03
16370	- Daybeacon 9	37 53 20 N 76 14 52 W				SG on pile.	
		*		*			1/03
16670	- LIGHT 1		FI G 2.5s	15	3	SG on pile.	
10070	2.5			*	ŭ	C C 0.11 p.110.	1/03
16675	- LIGHT 2		FIR 4s	15	3	TR on multi-pile structure.	
10073	- LIGHT 2		1111 43	*	3	in on main-pile structure.	1/03
16600	LICUT 2	29 00 20 N	FLC 4c	15	4	SC on pilo	.,
16680	- LIGHT 3	38 09 30 N 76 26 53 W	FI G 05	15	4	SG on pile.	
		*		*			1/03
16700	- LIGHT 3		QG	15	3	SG on pile.	Higher intensity beam down channel.
					*		1/03
16790	- LIGHT 4	29 00 00 N	ELD 2 Fc	15	3	TR on pile.	
10790	- LIGHT 4	38 09 09 N 76 28 15 W	FI K 2.35	13	3	i K on pile.	
		*		*			1/03
	PINEY POINT TO LOWER C	EDAR POINT (Cha	art 12286)				
	Potomac River						
	Bonum Creek						
	Daybeacons located 10 feet o	utside channel lim	it.				
16880	- NORTH JETTY LIGHT 2	38 05 53 N 76 34 49 W	FI R 2.5s	15	3	TR on pile.	
		*					1/03
16940	RAGGED POINT LIGHT	38 09 16 N	FI W 6s	44	9	NG on tower and small white	Higher intensity beam up and
		76 36 05 W				house on piles.	down river.
		*					1/03
	Lower Machodoc Creek						
16965	- LIGHT 1LM	38 08 26 N 76 39 00 W	FIG 4s	15	4	SG on pile.	
		*		*			1/03

		CORRE	ECTIONS TO C. G. LIC	GHT LIST, VO	DLUME II I	LIGHT LIST, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
16975	- LIGHT 4	38 07 29 N 76 38 22 W	FIR 4s	15	3	TR on pile.	Light equipment removed from Dec. 1 to Mar. 15.
		*		*			1/03
17060	- ENTRANCE LIGHT 2		FIR 4s	15	3	TR on pile.	
				*			1/03
17070	- LIGHT 5		FIG 6s	15	4	SG on pile.	Light equipment removed from Dec. 1 to Mar. 15.
				*			1/03
17075	COMBS CREEK LIGHT 1	38 15 34 N 76 41 31 W	FI G 2.5s	15	3	SG on pile.	Light equipment removed from Dec. 1 to Mar. 15.
		70 41 31 W					1/03
19325	- LIGHT 2	38 44 26 N	FIR 4s	15	3	TR on pile.	
		76 32 39 W		*			1/03
19400	- JETTY LIGHT 2		FIR 4s	15	3	TR on pile.	1703
17400	JETTI EIGITI Z		1111.43	*	3	TR off pile.	1/03
	Magothy River						
20095	- ENTRANCE LIGHT 2	39 03 21 N 76 25 47 W	FIR 4s	15	3	TR on multi-pile structure.	
		*				*	1/03
20190	Broad Creek Entrance	39 04 36 N				TR on pile.	
	Daybeacon 2	76 28 38 W *					1/03
20280	- Preferred Channel	39 05 10 N				JG on pile.	
	Daybeacon MR	76 31 30 W				·	1/03
20410	- ENTRANCE LIGHT 4		FI R 4s	15	2	TR on pile.	
20410	- ENTRANCE LIGHT 4		F1 K 45		3	rk on pile.	Light equipment removed from Dec. 1 to Mar. 15.
				*			1/03
22255	GUILFORD FLATS JUNCTION LIGHT	37 50 57 N 75 46 38 W	FI (2+1) R 6s	18	4	JR on multi-pile structure.	
							* 1/03
27670	- Channel Lighted Buoy 17		FIG 4s		4	Green.	Replaced by unlighted ice buoy from Nov. 25 to Apr. 1.
					*		1/03
	Oyster Creek						
32820	- ENTRANCE LIGHT 2	35 19 29 N 76 31 05 W	FIR 4s	15	3	TR on multi-pile structure.	
				*			1/03

		CORRE	ECTIONS TO C. G. LIC	GHT LIST, VC	LUME II L	LIGHT LIST, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
32850	ABEL BAY LIGHT 1		FI G 4s	15	4	SG on pile.		
					*			1/03
32900 38125	- LIGHT 4		FIR 4s	15	3	TR-SY on pile.		
					*			1/03
33220	NORTH CREEK ENTRANCE LIGHT 1	32 24 46 N 76 40 05 W	FIG 4s	15	4	SG on pile.		
				*				1/03
33275	BATH CREEK LIGHT 1	35 27 07 N 76 49 13 W	FI G 2.5s	15	4	SG on pile.		
		/6 49 13 W *				*		1/03
33290	BATH CREEK LIGHT 4		FIR 4s	15	3	TR on pile.		1703
33270	Diffi orelly light 4		1111 43	15	*	Tre on pile.		1/03
	Bay River							
33395 38255	BAY POINT LIGHT On south end of shoal.	35 10 21 N 76 30 19 W	FI W 4s	15	6	NB on pile.		
30233	On South Chu of Shoal.	70 30 17 W			*			1/03
36365	- Daybeacon 367					SG-SY on pile.		
	*					*		1/03
38125 32900	- LIGHT 4		FIR 4s	15	3	TR-SY on pile.		
32700					*			1/03
38255	BAY POINT LIGHT	35 10 21 N 76 30 19 W	FI W 4s	15	6	NB on pile.		
33395	On south end of shoal.	76 30 19 W			*			1/02
								1/03
	•	CORRECTIONS	TO C. G. LIGHT LIST,	VOLUME III	ATLANTIC	C AND GULF COAST, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
315	Fish America Artificial Reef Buoy C						Remove from list.	
							*	1/03
320	Fish America Artificial						Remove from list.	
	Reef Buoy D						*	4/00
	*Delete Heading:							1/03
	*Pasco County Fish Haven							
1540	- Buoy P						Remove from list.	
							*	1/03

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
1545	- Buoy S						Remove from list.	
							*	1/03
1550	- Buoy C						Remove from list.	
							*	1/03
1555	- Buoy O						Remove from list.	
							*	1/03
17130	- Daybeacon 7						Remove from list.	
							*	1/03
34625	- Daybeacon 9	32 45 56 N 79 59 02 W				SG-SY on pile.		
		*						1/03
35945	- Daybeacon A12	32 04 47 N 80 59 55 W				TR-TY on pile.		
		*						1/03
40505	- Buoy 3					Green can.		
	*					*		1/03
47760	- LIGHT 60	25 55 21 N 80 07 48 W	FIR 4s	16	3	TR-TY on pile.		
		80 07 48 W						1/03
	Biscayne Bay							1700
47780	- Daybeacon 2	25 55 06 N 80 07 37 W				TR-TY on pile.		
	•	80 07 37 W				·		4.100
47810	- LIGHT 5	25 54 33 N	FIG /s	16	1	SG-SY on pile.		1/03
47010	- LIGITI 3	80 07 32 W	11043	10	7	30-31 on pile.		
		*						1/03
	Miami Beach Channel							
47970	- LIGHT 2	25 52 08 N 80 08 41 W	FIR 4s	16	3	TR on pile.		
		*						1/03
50110	RUBICON KEYS LIGHT 8	25 24 02 N 80 15 19 W	FI R 2.5s	16	3	TR-TY on pile.		
		*						1/03

	CORRECTIONS TO C. G. LIGHT LIST, VOLUME IV LIGHT LIST, 2002										
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks				
*830	Hunt-103-25 Lighted Buoy Marks subsea installation.	28 08 04 N 91 46 38 W	QR			Red.	SIGN: HOC-EI-355-1-2 Private aid.	1/00			
*1274	Texas A Current Meter Lighted Buoy W	28 21 00 N 96 00 00 W	FIY4s			Yellow.	Private aid.	1/03			
								1/03			

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22400	KASAAN LIGHT	55 32 05 N 132 23 46 W	FI W 4s	12	6	NR on skeleton tower.	Obscured from 120.5° to 302.5°
		*					1/03
22405	HOLLIS FERRY TERMINAL EAST DOLPHIN LIGHT	55 29 26 N 132 37 07 W	FIR 6s	32		On dolphin.	Private aid.
		*					1/03
22407	HOLLIS FERRY TERMINAL WEST DOLPHIN LIGHT	55 29 25 N 132 37 21 W	FR	34		On dolphin.	Private aid.
	WEST BOLLTING LIGHT	*					1/03
22410	Clark Bay Daybeacon 3	55 29 19 N				SG on pile.	
		132 37 05 W *					1/03
	Clarence Strait						
22415	CAAMANO POINT LIGHT	55 29 54 N 131 59 01 W	FI W 6s	41	6	NR on steel post.	Obscured from 124° to 276°.
		*					1/03
22420	Niblack Point Daybeacon	55 33 01 N 132 07 14 W				NR on post.	
		132 07 14 W					1/03
22425	SHIP ISLAND LIGHT	55 35 56 N 132 12 11 W	FI W 4s	40	7	NR on skeleton tower.	Partially obscured by trees between island and main shore from 180° to 305°.
		*					1/03
22427	THORNE BAY ENTRANCE LIGHT 2	55 40 46 N 132 27 28 W	FIR 6s	16	4	TR on skeleton tower.	Obscured from 135° to 243°.
		*					1/03
22427.5	THORNE BAY CHANNEL LIGHT 3	55 40 26 N 132 27 35 W	FI G 2.5s	15	4	SG on pile.	Obscured from 305° to 055°.
		*					1/03
22428	THORNE BAY CHANNEL LIGHT 5	55 40 17 N 132 28 34 W	FIG 4s	29	4	SG on pile.	
	2.0	*					1/03

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22428.5	Thorne Bay Daybeacon 6	55 40 02 N 132 30 12 W				TR on pile.	
		*					1/03
22429.5	Thorne Bay Daybeacon 7	55 40 34 N 132 31 40 W				SG on pile.	
		*					1/03
22430	Misery Island Daybeacon 1	55 44 39 N		15		SG on post.	
		132 16 36 W *					1/03
22435	Myers Chuck Daybeacon 3	55 44 34 N				SG on pile.	
		132 15 50 W *					1/03
22445	MYERS CHUCK LIGHT 4	55 44 32 N	FIR 4s	19	5	TR on skeleton tower.	Obscured from 318° to 041° for
		132 15 48 W					vessels transiting Myers Chuck Inner Harbor; obscured from 106° to 041° for vessels transiting Clarence Strait. Higher intensity beam on 264°.
		*					1/03
22450	McHenry Ledge Lighted Bell Buoy 2	55 46 47 N 132 18 15 W	FI R 2.5s		4	Red.	
	,	*					1/03
22455	NARROW POINT LIGHT	55 47 27 N 132 28 35 W	FI W 6s	35	6	NR on skeleton tower.	Obscured from 337° to 152°.
		*					1/03
22460	RATZ HARBOR ENTRANCE LIGHT	55 53 15 N 132 35 54 W	FI W 4s	20	5	NR on skeleton tower.	
	Liom	*					1/03
	ETOLIN ISLAND TO MIDWAY	ISLANDS (Chart	17360)				
	Clarence Strait						
22462	Burnett Inlet Buoy 2	56 03 54 N 132 28 19 W				Red nun.	Marks entrance to Burnett Inlet and 1 1/2 fathom shoal.
	*	*					* 1/03
22465	Point Stanhope Buoy 2	56 00 07 N 132 37 00 W				Red nun.	
		*					1/03
22470	LINCOLN ROCK WEST LIGHT	56 03 24 N 132 41 50 W	FI W 6s	58	8	NR on skeleton tower on concrete base.	
		*					1/03
22475	BECK ISLAND LIGHT	56 02 51 N 132 51 45 W	FI W 4s	27	5	NR on skeleton tower.	Obscured from 340° to 061°.
		*					1/03

	CORR	ECTIONS TO C.	G. LIGHT LIST, VOLU	JME VI PACI	FIC COAS	T AND PACIFIC ISLANDS, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22477	WHALE PASS RESORT DOCK LIGHTS (2)						Remove from list.
							* 1/03
	Whale Passage						
22477.5	- Daybeacon 1	56 08 13 N 133 03 22 W				SG on pile.	
		*					1/03
22477.7	- Daybeacon 1A	56 07 42 N 133 04 57 W				SG on pile.	
		*					1/03
22478	- Daybeacon 2	56 06 53 N 133 04 56 W				TR on pile.	
		*					1/03
22478.5	- Daybeacon 3	56 06 35 N 133 04 56 W				SG on pile.	
		*					1/03
22478.7	- Daybeacon 4	56 06 31 N 133 04 26 W				TR on pile.	
		*					1/03
22479	- Daybeacon 5	56 06 45 N 133 04 06 W				SG on pile.	
		*					1/03
22479.3	- Daybeacon 5A	56 06 24 N 133 04 42 W				SG on pile.	
		133 U4 42 W					1/03
	Clarence Strait						
22480	KEY REEF LIGHT	56 09 36 N 132 49 54 W	FI W 6s	43	6	NR on pile on truncated concrete pyramid.	
						F)	1/03
22485	Point Harrington Buoy 4	56 10 41 N 132 44 22 W				Red nun.	
		*					1/03
22490	NESBITT REEF LIGHT	56 13 13 N 132 51 50 W	FI W 2.5s	27	5	NR on pile.	
		*					1/03
22495	KASHEVAROF PASSAGE	56 10 47 N 133 01 18 W	FI W 6s	27	6	NR on skeleton tower.	
	LIGHT	*					1/03
22500	Kashevarof Passage	56 12 53 N		25		TR on pile.	
	Daybeacon 2	133 01 20 W					1/03
							1700

(8) Remarks
1/03
ed from 358° to 111°.
1/03
1/03
ed from 353° to 097°.
1/03
1/03
1/03
1/03
ntensity up and down nel.
1/03
1/03
1/03
1/03
1/03

	CORR	RECTIONS TO C.	G. LIGHT LIST, VOLU	JME VI PACI	FIC COAS	T AND PACIFIC ISLANDS, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22565	Button Island Shoal Buoy 5	56 12 05 N 132 14 54 W				Green can.	
		*					1/03
22570	- LIGHT 6	56 12 14 N 132 15 12 W	FI R 2.5s	24	4	TR on pile.	
		*					1/03
22575	Double Rock Daybeacon 8	56 12 12 N 132 15 33 W		16		TR on pile.	
		*					1/03
22580	- Buoy 9	56 11 52 N 132 15 38 W				Green can.	
		*					1/03
22585	- Buoy 10	56 11 55 N 132 15 38 W				Red nun.	
		*					1/03
22590	Midchannel Rock Daybeacon	56 12 10 N 132 16 16 W				JR on single steel pile.	
		*					1/03
22595	Village Rock Daybeacon 12	56 12 53 N 132 17 37 W		22		TR on single steel pile.	
		*					1/03
22600	VILLAGE ISLANDS LIGHT 13	56 12 47 N 132 18 07 W	FIG 4s	17	4	SG on pile.	
		*					1/03
22605	Village Islands Rock Daybeacon 15	56 13 08 N 132 19 05 W		22		SG on post on concrete pier.	
		*					1/03
22607	- Daybeacon	56 21 34 N 132 22 03 W				NR on spindle.	
		*					1/03
22610	HAT ISLAND LIGHT	56 22 31 N 132 25 36 W	FI W 4s	23	6	NR on skeleton tower.	Obscured from 091° to 234°.
		*					1/03
	Shoemaker Bay						
22615	- SMALLBOAT HARBOR LIGHT 1	56 25 02 N 132 21 11 W	FIG 4s	20	5	SG on pile.	
		*					1/03
22620	- SMALLBOAT HARBOR LIGHT 2	56 25 00 N 132 21 09 W	FI R 2.5s	20	3	TR on pile.	
		*					1/03

	COF	RECTIONS TO C.	G. LIGHT LIST, VOLU	JME VI PACI	FIC COAS	T AND PACIFIC ISLANDS, 20	02
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	Wrangell Harbor						
22630	- BREAKWATER LIGHT 2	56 28 01 N 132 23 09 W	FIR 4s	21	5	TR on skeleton tower.	
		*					1/03
22635	WRANGELL DOCK LIGHTS (4)	56 28 19 N 132 23 17 W	F G	12		On dock and dolphins.	Private aids.
		*					1/03
22640	- Daybeacon 4	56 27 53 N 132 22 48 W		20		TR on pile.	
		*					1/03
22645	- Daybeacon 5	56 27 53 N 132 22 46 W		19		SG on pile.	
		132 22 40 W					1/03
22650	Daubagaan 4	56 27 52 N		18		TD on pile	1103
22000	- Daybeacon 6	132 22 44 W		18		TR on pile.	
		*					1/03
22655	- Daybeacon 7	56 27 54 N 132 22 44 W		19		SG on pile.	
		*					1/03
22660	- Daybeacon 8	56 27 54 N		19		TR on pile.	
22000	24,204000	56 27 54 N 132 22 41 W		• • •		o p.i.o.	
		*					1/03
22665	Point Highfield Reef Daybeacon	56 28 57 N 132 23 45 W		18		NR on pile.	
		*					1/03
	Blake Channel						
22670	- LIGHT 1	56 12 38 N 131 55 26 W	FI G 4s	28	4	SG on skeleton tower.	Higher intensity beam up channel.
		131 33 20 W					1/03
22475	LICUT 2	E4 20 47 N	ELD 4c	15	5	TR on skeleton tower.	
22675	- LIGHT 2	56 20 47 N 132 00 24 W	FI K 45	15	5	TR OIT Skeletoff tower.	Higher intensity beam down channel. Obscured from 133° to 233°.
		*					1/03
	Eastern Passage						
22680	THE NARROWS LIGHT 5	56 21 50 N	FI G 2.5s	12	3	SG on pile.	
		132 06 44 W					
		*					1/03
22685	- LIGHT 7	56 22 07 N 132 10 18 W	FI G 4s	24	6	SG on skeleton tower.	Higher intensity beam up channel.
		*					1/03

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22687	AIRPORT RUNWAY ROCK LIGHT	56 29 06 N 132 21 11 W		15	4	NR on spindle.	
	Liom	*					1/03
22690	- LIGHT	56 29 38 N	FI W 2.5s	13	6	NR on skeleton tower.	
		132 22 13 W *					1/03
	Stikine Strait						
22695	STEAMER POINT LIGHT	56 13 23 N 132 42 49 W	FI W 4s	30	5	NR on skeleton tower.	Obscured from 213° to 017°.
		*					1/03
22700	ROUND POINT LIGHT	56 16 40 N 132 39 27 W	FI W 6s	24	5	NR on spindle.	Obscured from 006.5° to 201.5°
		*					1/03
22705	SOUTH CRAIG POINT LIGHT	56 23 25 N 132 37 22 W	FI W 2.5s	24	5	NR on pile.	Obscured from 006° to 178°.
	LIGITI	*					1/03
22710	POINT ANCON LIGHT	56 24 18 N 132 33 19 W	FI W 6s	20	6	NR on square frame.	Obscured from 214° to 014°.
		132 33 19 W					1/03
22715	Woronkofski Point	56 26 21 N 132 28 51 W		18		NR on skeleton tower.	
	Daybeacon	132 ZO 31 W					1/03
22720	VANK ISLAND LIGHT	56 26 55 N 132 36 00 W	FI W 4s	24	7	NR on pile.	Obscured from 110° to 264°.
		132 30 UU W					1/03
22725	FIVE MILE ISLAND LIGHT	56 28 14 N	FI W 4s	34	5	NR on pile.	Obscured from 329° to 100°.
		132 30 43 W					1/03
	Sumner Strait						
22730	POINT COLPOYS LIGHT	56 20 11 N 133 11 54 W	FI W 6s	19	6	NR on skeleton tower.	Obscured from 302° to 102°.
		*					1/03
22735	McArthur Reef Lighted Bell Buoy MR	56 23 37 N 133 10 38 W	FI (2+1) G 6s		4	Green and red bands.	
		*					1/03
22740	Mitchell Point Lighted Buoy 9	56 25 23 N 133 10 46 W	FI G 6s		4	Green.	
		*					1/03

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22745	VICHNEFSKI ROCK LIGHT	56 26 18 N 133 00 56 W	FI W 4s	33	6	NR on skeleton tower.	1 1/4 fathom rock, 630 yards 214° from light.
		*					1/03
22750	Level Island Lighted Buoy 11	56 27 05 N 133 02 29 W	FIG 4s		4	Green.	
	-	*					1/03
22755	Low Point Daybeacon	56 27 29 N 132 55 30 W		12		NR on square frame.	
		132 33 30 W					1/03
22760	STATION ISLAND LIGHT	56 29 40 N	FI W 2.5s	19	5	NR on square frame structure.	
		132 45 48 W					1/03
22765	CRAIG POINT LIGHT	56 27 24 N	EI W 6c	11	7	NR on square frame.	Obscured from 301° to 096°.
22703	CRAIGT OINT EIGHT	132 42 57 W	11 W 03		,	TWO OIT Square Italiie.	
		*					1/03
22770	TWO TREE ISLAND LIGHT	56 29 39 N 132 38 04 W	FI W 6s	22	6	NR on pile.	
		*					1/03
	Dry Strait						
22775	- LIGHT 1	56 35 02 N 132 32 33 W	FI G 4s	29	4	SG on skeleton tower.	
		*					1/03
22780	- Daybeacon 3	56 36 29 N 132 33 06 W		24		SG on skeleton tower.	
		*					1/03
22785	- LIGHT 5	56 38 11 N 132 36 44 W	FI G 6s	17	4	SG on square frame.	
		*					1/03
	Duncan Canal						
22790	Foremost Rock Daybeacon	56 30 07 N 133 00 27 W		20		NR on post.	
		*					1/03
22795	BUTTERWORTH ISLAND	56 32 13 N	FI R 2.5s	21	4	TR on frame structure.	
	LIGHT 2	133 04 31 W					1/03
22800	- Daybeacon 3	56 32 28 N		21		SG on frame structure.	
	•	133 05 25 W					4100
		^					1/03

						ST AND PACIFIC ISLANDS, 200	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22815	BEECHER PASS LIGHT 4	56 34 47 N 133 04 28 W	FIR 4s	15	3	TR on skeleton tower.	Obscured from 270° to 005°.
		*					1/03
22820	- Daybeacon	56 38 34 N 133 06 02 W				NR on spindle.	
		*					1/03
	Wrangell Narrows						
22825	POINT ALEXANDER LIGHT	56 30 33 N 132 57 01 W	FI W 4s	17	7	NR on skeleton tower.	Obscured from 162° to 293°.
		*					1/03
22835	DECEMBER POINT LIGHT DP	56 32 52 N 132 57 40 W	FIR 6s	15	4	TR on pile.	
		*					1/03
22840	POINT LOCKWOOD LIGHT PL	56 33 21 N 132 57 51 W	FI G 4s	15	4	SG on skeleton tower.	Obscured from 027° to 166°.
		*					1/03
22845	- CHANNEL LIGHT 1	56 33 57 N 132 58 09 W	FI G 2.5s	22	3	SG on concrete pier.	
		*					1/03
22850	- CHANNEL LIGHT 2	56 34 06 N 132 58 10 W	FI R 2.5s	22	3	TR on steel pile structure.	
		*					1/03
22855	- Channel Lighted Buoy 2A	56 34 12 N 132 58 19 W	FI R 2.5s		3	Red.	
	•	*					1/03
22860	- Channel Lighted Buoy 3	56 34 15 N 132 58 30 W	FI G 2.5s		3	Green.	
	,	*					1/03
22863	- Daybeacon 4	56 34 22 N 132 58 24 W				TR on steel pile.	
		*					1/03
22865	- CHANNEL LIGHT 4A	56 34 29 N 132 58 27 W	FI R 2.5s	18	3	TR on cylindrical base.	
		*					1/03
22870	- Channel Lighted Buoy 3A	56 34 33 N 132 58 36 W	FI G 4s		4	Green.	
	Duoy 3A	*					1/03
22875	- Tow Channel Buoy 1TC	56 34 12 N				Green can.	
		132 58 04 W					1/03

	CORI	RECTIONS TO C.	G. LIGHT LIST, VOLU	JME VI PACI	FIC COAS	ST AND PACIFIC ISLANDS, 200	2
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22880	- Tow Channel Buoy 3TC	56 34 23 N 132 58 10 W				Green can.	
		*					1/03
22890	- CHANNEL LIGHT 5	56 34 52 N 132 58 39 W	FI G 2.5s	16	3	SG on skeleton tower.	
		*					1/03
22895	- CHANNEL LIGHT 8	56 35 39 N	FI R 2.5s	9	3	TR on dolphin.	
		132 58 28 W					1/03
22900	BURNT ISLAND RANGE	56 36 26 N	FΥ	10		KRW on multi-pile steel	Visible 4° each side of rangeline.
	FRONT LIGHT	132 58 37 W				structure.	1/03
22905	BURNT ISLAND RANGE	56 36 37 N	FY	26		KRW on dolphin.	Visible 4° each side of rangeline.
	REAR LIGHT 390 yards, 356.5° from	132 58 39 W				·	J
	front light.	*					1/02
22910	- Channel Lighted	56 35 55 N	FIG 4s		4	Green.	1/03
22710	Buoy 9	132 58 36 W	110 43		4	Gleen.	
22020	CHANNEL LIGHT 11	*	FLOOR	15	2		1/03
22920	- CHANNEL LIGHT 11	56 36 26 N 132 58 31 W	FI G 2.5S	15	3	SG on pyramid.	
		*					1/03
22925	- Channel Buoy 13	56 36 36 N 132 58 25 W				Green can.	
		*					1/03
22930	- Channel Buoy 13A	56 36 41 N 132 58 21 W				Green can.	
		*					1/03
22935	- CHANNEL LIGHT 14	56 36 40 N 132 58 16 W	FI R 2.5s	15	3	TR on steel pile structure.	
		*					1/03
22940	BUSH TOP ISLAND RANGE FRONT LIGHT	56 37 53 N 132 57 06 W	FY	15		KRW on steel pile structure.	Visible 4° each side of rangeline.
		*					1/03
22945	BUSH TOP ISLAND RANGE REAR LIGHT	58 38 05 N 132 56 54 W	FY	28		KRW on skeleton tower.	Visible 4° each side of rangeline.
	460 yards, 029° from front light.						
		*					1/03

		RECTIONS TO C.		JME VI PACI	FIC COAS	ST AND PACIFIC ISLANDS, 2002	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22950	- CHANNEL LIGHT 15	56 37 23 N 132 57 40 W	FI G 2.5s	15	3	SG on steel pile structure.	
		*					1/03
22955	- CHANNEL LIGHT 16	56 37 24 N 132 57 32 W	FI R 2.5s	15	3	TR on steel pile structure.	
		*					1/03
22960	- CHANNEL LIGHT 17	56 37 40 N	FI G 2.5s	15	3	SG on steel pile structure.	
		132 57 17 W *					1/03
22965	- CHANNEL LIGHT 18	56 37 50 N	FI R 2.5s	19	3	TR on white truncated concrete	
		132 56 54 W				structure.	1/03
22970	- CHANNEL LIGHT 19	56 38 01 N	FI G 2.5s	20	3	SG on steel structure, on	
		132 56 50 W				cylindrical concrete pier.	1/03
22975	- Channel Light 21	56 38 20 N	0.6	15	3	SG on steel pile structure.	1703
22713	CIWWWEE EIGHT 21	132 56 02 W	40	15	3	36 on steel pile structure.	
22000	DUND DOINT DANCE	*	F.V.	17	4	VDW on steel pile attricture	1/03
22980	BLIND POINT RANGE FRONT LIGHT	56 38 35 N 132 55 24 W	FY	17	4	KRW on steel pile structure.	Visible 4° each side of rangeline.
		*					1/03
22985	BLIND POINT RANGE REAR LIGHT 268 yards, 050.3° from	56 38 40 N 132 55 13 W	FY	31		KRW on steel pile structure.	
	front [*] light.	*					1/03
22990	- CHANNEL LIGHT 25	56 38 47 N	FI G 2.5s	15	3	SG on pile structure.	1100
		132 55 21 W				·	1/03
22995	- Channel Lighted	56 38 48 N	FI D /s		3	Red.	1703
22773	Buoy 26	132 55 13 W	1111 43		J	Neu.	
22000	CHANNEL LICHT 27	*	FI O O F	15	2	CC on delahir	1/03
23000	- CHANNEL LIGHT 27	56 38 55 N 132 55 18 W	FI G 2.5S	15	3	SG on dolphin.	
		*					1/03
23005	- Channel Lighted Buoy 28	56 39 02 N 132 55 11 W	FIR 4s		3	Red.	
		*					1/03
23010	- Channel Lighted Buoy 29	56 39 08 N 132 55 20 W	FI G 2.5s		3	Green.	
		*					1/03

(4)						T AND PACIFIC ISLANDS, 200	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
23015	- Tow Channel Buoy 5TC	56 38 47 N 132 55 36 W				Green can.	Used by tows with a draft of 9 feet or less.
		*					1/03
23020	- Tow Channel Buoy 7TC	56 39 14 N 132 55 26 W				Green can.	Used by tows with a draft of 9 feet or less.
		*					1/03
23025	- CHANNEL LIGHT 31	56 39 20 N 132 55 33 W	QG	13	3	SG on pile on concrete pier.	
		*					1/03
23030	- CHANNEL LIGHT 32	56 39 24 N 132 55 28 W	QR	15	3	TR on steel pile structure.	
		*					1/03
23035	- CHANNEL LIGHT 32A	56 39 32 N 132 55 37 W	FI R 4s	15	3	TR on steel pile structure.	
		*					1/03
23045	- CHANNEL LIGHT 34	56 39 40 N 132 55 42 W	FI R 2.5s	15	3	TR on dolphin.	
		*					1/03
23050	- Channel Lighted Buoy 36	56 39 52 N 132 55 47 W	FIR 4s		3	Red.	
		*					1/03
23055	- CHANNEL LIGHT 37	56 39 58 N 132 55 56 W	QG	21	3	SG on skeleton tower on concrete pier.	
		*					1/03
23060	- CHANNEL LIGHT 38	56 40 08 N 132 55 57 W	FI R 2.5s	15	3	TR on dolphin.	
		*					1/03
23065	- Channel Daybeacon 39	56 40 06 N 132 56 05 W				SG on spindle on pyramid.	
		*					1/03
23070	- CHANNEL LIGHT 40	56 40 16 N 132 56 05 W	FI R 2.5s	21	3	TR on skeleton tower on concrete pier.	
		*				201111011	1/03
23075	- Channel Lighted	56 40 23 N	FI R 4s		3	Red.	
	Buoy 42	132 56 12 W					1/02
22022	CHANNEL LIGHT 42		0.0	10		CC on delahir	1/03
23080	- CHANNEL LIGHT 43	56 41 00 N 132 56 44 W	QG	13	3	SG on dolphin.	
		*					1/03

	COF	RRECTIONS TO C.	G. LIGHT LIST, VOLU	JME VI PACI	FIC COAS	ST AND PACIFIC ISLANDS, 200)2	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
23085	- CHANNEL LIGHT 44	56 41 04 N 132 56 39 W	FI R 2.5s	15	3	TR on steel pile structure.		1/03
23090	- Channel Lighted Buoy 46	56 41 28 N 132 56 59 W	FI R 2.5s		3	Red.		1/03
23095	- CHANNEL LIGHT 47	56 41 32 N 132 57 08 W	FI G 2.5s	15	3	SG on steel pile structure.		
23100	- CHANNEL LIGHT 48	* 56 41 41 N 132 57 02 W	FI R 2.5s	15	3	TR on dolphin.		1/03
23105	- CHANNEL LIGHT 49	* 56 41 41 N 132 57 02 W	QG	12	4	SG on dolphin.		1/03
23110	- CHANNEL LIGHT 50	* 56 42 17 N	FI R 2.5s	15	4	TR on steel pile structure.		1/03
23120	- CHANNEL LIGHT 51	132 56 54 W * 56 44 18 N	FI.C. 6s	43	5	SG on skeleton tower.	Obscured from 349° to 148°	1/03
23120	- CHANNEL LIGHT 31	132 57 27 W	110 05	43	J	30 on skeleton tower.	Obscured from 347 10 140	1/03
23123	Beckham's Beach Daybeacon 51A	56 46 12 N 132 58 43 W				SG on pile.		1/03
23125	- CHANNEL LIGHT 52	56 46 52 N 132 58 51 W	FIR 4s	13	4	TR on pile structure.	Higher intensity beam down channel.	
23130	Reid Landing Dock Light	56 46 56 N 132 58 46 W	FR	14		On post.	Private aid.	1/03
23135	- Channel Lighted Buoy 53	56 48 00 N 132 59 13 W	FIG 4s		4	Green.		1/03
27982	Grantley Harbor Daybeacon 2	* 65 16 21 N 166 21 22 W				TR on tower.	Maintained from July 1 to Nov. 1.	1/03
		*						1/03

	CORR	ECTIONS TO C.	G. LIGHT LIST, VOLU	JME VI PACI	FIC COAS	T AND PACIFIC ISLANDS, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
	CAPE PRINCE OF WALES TO	POINT BARRO	N (Chart 16005)					
	Kotzebue Sound							
27985	CAPE ESPENBERG LIGHT	66 33 27 N 163 36 31 W	FI W 2.5s	28	6	NR on skeleton tower.	Maintained from July 1 to Nov. 1.	
		*						1/03
27995	CAPE DECEIT LIGHT	66 05 58 N 162 45 10 W	FI W 6s	200	7	NR on skeleton tower.	Maintained from July 1 to Nov. 1.	
		*						1/03
28000	RILEY CHANNEL ENTRANCE LIGHT	66 46 57 N 161 52 30 W	FI W 6s	17	7	NR on skeleton tower.	Maintained from July 1 to Nov. 1.	
		*						1/03
		CORRE	CTIONS TO C. G. LIG	HT LIST, VO	LUME VII	LIGHT LIST, 2002		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
	WEST END OF LAKE ERIE (C	hart 14830)						
	Pelee Passage							
6795	Southeast Shoal Light (C)	41 49 36 N 82 27 48 W	FI R 10s	70 21	21	White square structure with red stripes on pyramidal base. 60	RACON: K (- • -). Winter light FI W 4s. Seasonal. Emergency light.	
			*					1/03
14920	- Buoy 18					Red nun.		
	*						*	1/03

		COR	RECTIONS TO PUB 1	10, LIST OF	LIGHTS, 2	002 EDITION		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
13372 J 5085.5	-Muelle de Tunas.						Remove from list.	
							*	1.
13376.6 J 5087.8	-No. "11".						Remove from list.	
							*	1
		COR	RECTIONS TO PUB 1	11, LIST OF	LIGHTS, 2	2002 EDITION		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
4998.1 K 4225.1	Rear, 600 meters 164°45′ from front.	41° 16.5′ S 173° 15.5′ E	F.Bu. (neon)	88 27	10	Beacon, white triangular daymark, point down.	Visible 130°-200°, partial obscured 174°-188°.	ly
			*					1
*6793 K 3636.35	Range, front.	42° 49.2′ S 147° 18.3′ E	F.Bu.			Orange triangular topmark, point up.		
								1
*6794 <i>(3636.36</i>	Rear, 307°54′ from front.	42° 49.2′ S 147° 18.3′ E	F.Bu.			Orange triangular topmark, point down.		
								1
7144 <i>K 3577.1</i>	Rear, 50 meters 126°16′ from front.	41° 07.0′ S 146° 49.5′ E	F.R. (neon)	43 13		Beacon, orange triangular daymark, point down; 37.		
		*				*		1
14775 G 3540.08	-Range, front.	31° 18.0′ N 113° 33.0′ W		69 21	8	Truncated pyramidal metal tower, red stripes; 39.		
					*			1
14776 G 3540.09	Rear.	31° 18.0′ N 113° 33.0′ W		98 30	8	Truncated pyramidal metal tower, red stripes; 39.		
					*			1
14777 G 3540.13	-E. breakwater.	31° 18.4′ N 113° 32.9′ W		33 10	9	Truncated pyramidal metal tower; 23.		
					*			1
14778 G 3540	Puerto Penasco.	31° 17.1′ N 113° 34.7′ W	FI.W. period 8s	318 97	17	White octagonal concrete tower; 30.		
					*			1
14779 G 3540.15	-W. breakwater.	31° 18.3′ N 113° 33.1′ W	FI.R.	33 10	9	Truncated pyramidal metal tower; 23.		

Note: Asterisks (*) indicate that column(s) in which a correction has been made or new information added. Denotes a new entry when preceding the station number.

1/03

			RECTIONS TO PUB 1		LIGHTS, 2		
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
14784 G 3539.6	La Soledad.	30° 49.0′ N 113° 07.0′ W	FI.(3)W. period 12s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 5s	49 15	10	Truncated pyramidal aluminum tower; 33.	
					*		1/03
14786 <i>G 3539.2</i>	Cabo Tepoca.	30° 16.3′ N 112° 51.1′ W	FI.(3)W. period 12s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 5s	128 39	15	White round concrete tower, red bands.	
					*		1/03
14787 G 3539.5	Rio de la Concepcion.	30° 33.2′ N 113° 00.0′ W		82 25	10	White truncated pyramidal concrete tower, red bands; 38.	
				*	*		1/03
14789 G 3538.8	Puerto Libertad.	29° 54.0′ N 112° 45.5′ W	FI.W. period 6s fl. 1s, ec. 5s	43 13	9	White round metal tower; 33.	
			*		*		1/03
14793 G 3538.25	Isla San Esteban.	28° 42.8′ N 112° 33.0′ W		56 17	10	White truncated pyramidal metal tower; 39.	
					*		1/03
14800 G 3538.33	-Punta Willard.	28° 53.3′ N 112° 35.8′ W	FI.(3)W. period 12s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 5s	46 14	9	Round concrete tower; 8.	
					*	*	1/03
14805 <i>G 3538.2</i>	Isla Turners.	28° 42.0′ N 112° 19.5′ W		256 78	9	White truncated pyramidal concrete tower; 25.	
					*	*	1/03
14806 G 3538	Isla Pelicano.	28° 48.0′ N 111° 59.2′ W	FI.W. period 6s fl. 1s, ec. 5s	39 12	9	Truncated pyramidal metal tower; 23.	
					*		1/03
14807 G 3537.8	Isla San Pedro Martir.	28° 23.0′ N 112° 20.0′ W	F1.(4)W. period 16s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 6s	279 85	7	White truncated pyramidal metal tower; 23.	
					*		1/03

CORRECTIONS TO PUB 111, LIST OF LIGHTS, 2002 EDITION (1) (2) (3) (4) (5) (7) (7) (7) (9)									
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks		
14809 G 3537.9	Punta Baja.	28° 28.2′ N 111° 42.6′ W	FI.(3)W. period 12s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 5s	39 12	9	White truncated pyramidal metal tower; 25.			
					*	*		1	
14813 G 3537.67	Isla San Pedro Nolasco.	27° 57.7′ N 111° 23.0′ W	FI.(3)W. period 12s fl. 1s, ec. 2s fl. 1s, ec. 2s fl. 1s, ec. 5s	62 19	10	Truncated pyramidal aluminum tower; 39.			
					*			1	
14816 G 3537.4	Punta San Guillermo, Puerto San Carlos.	27° 56.0′ N 111° 03.7′ W		56 17	9	Truncated pyramidal aluminum tower; 23.			
					*				
14820 G 3537.45	Bahia San Carlos.	27° 56.0′ N 111° 04.0′ W		66 20	9	Truncated pyramidal metal tower; 30.			
					*				
		COR	RECTIONS TO PUB 1	12, LIST OF	LIGHTS, 2	001 EDITION			
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks		
1540 F 5330	Kurumi Se.	34° 02.4′ N 130° 53.6′ E	FI.(2)W.	39 12	3	ISOLATED DANGER BRB, beacon, topmark; 31.			
		*	poriod os		*	bits, bodosii, topinark, o i.			
3552	Akita Ko, S. breakwater, inner	39° 45.6′ N	FI.R.	49	г	Red cylindrical concrete			
					5				
F 7066	head.		period 5s	15		structure; 36.			
F /U66	head.	140° 02.3′ E *	period 5s *	15 *	*				
	head. Genbei Syo.		* FI.(2)W.		*				
3830		* 41° 33.0′ N	* FI.(2)W.	*	*	structure; 36. ISOLATED DANGER			
3830 F 6635 4656		* 41° 33.0′ N 140° 54.8′ E * 36° 51.6′ N	* FI.(2)W. period 5s FI.(2)G.	* 24 7	* 3 *	structure; 36. ISOLATED DANGER			
3830 F 6635	Genbei Syo.	* 41° 33.0′ N 140° 54.8′ E *	* FI.(2)W. period 5s FI.(2)G.	* 24 7	* 3 *	structure; 36. ISOLATED DANGER BRB, beacon, topmark; 21.			
3830 F 6635 4656 F 6498.2	Genbei Syo. Hirakata Ko, S. breakwater.	* 41' 33.0' N 140' 54.8' E * 36' 51.6' N 140' 48.0' E *	* FI.(2)W. period 5s FI.(2)G. period 6s	* 24 7 49 15	* 3 * 7 *	structure; 36. ISOLATED DANGER BRB, beacon, topmark; 21. White concrete structure; 31.		•	
3830 F 6635 4656 F 6498.2	Genbei Syo.	* 41' 33.0' N 140' 54.8' E * 36' 51.6' N 140' 48.0' E * 35' 26.7' N 139' 39.7' E	* FI.(2)W. period 5s FI.(2)G. period 6s	* 24 7 49 15	* 3 * 7 * 3	structure; 36. ISOLATED DANGER BRB, beacon, topmark; 21.			
3830 F 6635 4656 F 6498.2	Genbei Syo. Hirakata Ko, S. breakwater.	* 41. 33.0′ N 140. 54.8′ E * 36. 51.6′ N 140. 48.0′ E *	* FI.(2)W. period 5s FI.(2)G. period 6s	* 24 7 49 15	* 3 * 7 *	structure; 36. ISOLATED DANGER BRB, beacon, topmark; 21. White concrete structure; 31. White cylindrical concrete tower;		•	
3830 F 6635 4656 F 6498.2 5192 F 6413	Genbei Syo. Hirakata Ko, S. breakwater.	* 41' 33.0' N 140' 54.8' E * 36' 51.6' N 140' 48.0' E * 35' 26.7' N 139' 39.7' E	* FI.(2)W. period 5s FI.(2)G. period 6s Iso.G. period 4s FI.(2)G.	* 24 7 49 15	* 3 * 7 * 3	structure; 36. ISOLATED DANGER BRB, beacon, topmark; 21. White concrete structure; 31. White cylindrical concrete tower;			
3830 F 6635 4656 F 6498.2 5192 F 6413	Genbei Syo. Hirakata Ko, S. breakwater. -Lumber basin, breakwater. -Tiba Ko Itihara, detached	* 41' 33.0' N 140' 54.8' E * 36' 51.6' N 140' 48.0' E * 35' 26.7' N 139' 39.7' E *	* FI.(2)W. period 5s FI.(2)G. period 6s Iso.G. period 4s FI.(2)G.	* 24 7 49 15 33 10 *	* 3 * 7 * 3	structure; 36. ISOLATED DANGER BRB, beacon, topmark; 21. White concrete structure; 31. White cylindrical concrete tower; 29. White cylindrical concrete tower;			

Note: Asterisks (*) indicate that column(s) in which a correction has been made or new information added. Denotes a new entry when preceding the station number.

1/03

		COR	RECTIONS TO PUB 1	112, LIST OF I	LIGHTS, 2	001 EDITION	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
5884 F 6199	Mikawa Nisiura.	34° 47.3′ N 137° 11.5′ E *	FI.G. period 3s	39 12	*	White cylindrical concrete tower; 28.	1/03
	MIKAWA WAN:						
5896 F 6197.6	-Kuramai Ko, breakwater, head.	34° 46.4′ N 137° 10.3′ E *	FI.G. period 3s	40 12	3	White round concrete tower; 30.	1/03
5960 F 6193	-Yosida Ko.	34° 46.8′ N 137° 04.7′ E	FI.(2)R. period 6s	20 6	7	STARBOARD (B) R, beacon, topmark.	1/05
					*		1/03
6220 F 6084	-N. breakwater, head.	34° 42.6′ N 136° 31.6′ E *	FI.(2)R. period 6s	39 12 *	*	Red octagonal concrete tower; 30.	1/03
6400 F 6034.5	Katada Ko, S. breakwater.	34° 15.0′ N 136° 50.6′ E		46 14	F. 3 Fl 8	Red cylindrical concrete structure; 32.	1103
		*			*		1/03
8524 F 5700	Oge Sima.	34° 11.3′ N 132° 55.1′ E		115 35		White octagonal stone tower; 31.	Visible 356°-186°.
		*			*		1/03
10232 F 5598.2	Saga Ko, Ko Shima.						Remove from list.
12274	Wherefronker	22° 27 47 N	FIG	27	0	M/-ite and described and described	* 1/03
F 5282.5	-W. breakwater.	33° 36.4′ N 130° 22.7′ E *	period 4s	27 8	*	White quadrangular concrete tower; 25.	
122/0	C hronkwater		r r i n	2/		Dad culindrical converts	1/03
F 5282.4	-S. breakwater.	33° 36.4′ N 130° 22.7′ E		36 11	F. 0 Fl 10	Red cylindrical concrete structure; 31.	
12020	-Arifuku Jima.	32° 55.2′ N	ELW	44		White cylindrical concrete	1/03
F 5028.4	-Alliuku Jillid.	128° 55.8′ E		66 20	*	structure; 33.	
12202	Naha, breakwater, N. end.	26° 13.4′ N	ELD	30		Red tower; 8.	1/03
F 4744.8		127° 38.6′ E		9 9	*	*	
14010	Daggam (Pagg Am)	35° 02.3′ N	FIC	16		PORT (B)	1/03
F 4342.4		128° 37.8′ E	period 5s	46 14	5	G, beacon, topmark; 42.	
*	RACON *		B (- · · ·)				1/03

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
No.	Name and Location	Position	Characteristic	Height	Range	Structure	Remarks	
16862 F 4335	Bugyeo Do.	34° 41.0′ N 128° 46.5′ E	FI.(2)W. period 5s	79 24	8	ISOLATED DANGER BRB, tower; 75.		
	RACON		B(-•••)		10			
	*		*		*			1/03
17832 <i>F 4187</i>	Soyeo Am (Mid Channel Rocks).	36° 19.2′ N 126° 28.4′ E	FI.R. period 4s	56 17	5	STARBOARD (B) R, beacon; 30.		
		*		*				1/03
*18779.4 F 3795	Sheyanghe Kou.	33° 49.2′ N 120° 28.9′ E		89 27	6	White metal framework tower, red bands.		
	RACON		O()					
								1/03
^18779.5 F 3794.5	Xinyanggang Kou.	33° 39.0′ N 120° 34.0′ E	FI.W. period 12s	89 27	12	Wooden framework tower; 95.		
								1/03
*18779.6 F 3794.2	Doulonggang.	33° 28.9′ N 120° 40.0′ E	FI.(3)W. period 12s fl. 1s, ec. 1s fl. 1s, ec. 1s fl. 1s, ec. 7s	33 10	10	Black wooden framework tower.		
*18779 7	Chuandonggang Kou.	33° 03.9′ N	FIW	33	10	Black metal pile.		1/03
F 3794.17	ondandonggang Rod.	120° 47.5′ E		10	10	Diddik metal pilo.		
*18779.8	Xiaoyang Gang.	32° 30.2′ N	FI (2)W	30	7	Framework tower.		1/03
F 3794.14	Alabyang bang.	121° 07.0′ E	period 6s	9	,	Trainework tower.		
*20042	Seabelle rock.	5° 54.6′ N	ELW	30	o	White column on piles.		1/03
F 2885.6	Seabelle Tock.	102° 42.6′ E	period 4s	9	0	write column on piles.		
*00000		5: 40 // N	51.5	20	-	5.1		1/03
20998 F 2877	Marang, breakwater.	5° 12.6′ N 103° 12.9′ E	period 3s	39 12	5	Red concrete tower.		
								1/03
23188 <i>K 0860</i>	Padang.	0° 58.0′ S 100° 21.0′ E	FI.W. period 5s	30 9	10	White metal framework tower; 13.		
					*			1/03
29308 D 7576	Mina Su'ud, jetty, head.	28° 41.5′ N 48° 23.4′ E	5 Mo.(U)G. period 15s				Lights mark pier head. Horn: 4 bl. ev. 60s.	
		*	*					1/03
*30361 E 8259	Platform ASMA-8.	28° 13.2′ N 33° 20.5′ E	2 Mo.(U)W.	33 10			Horn: Mo.(U) 30s	
_ 0207	RACON	00 20.0 L	C(-•-•)	10				
								1/03

			RECTIONS TO PUB 1	13, LIST OF	LIGHTS, 2			
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
	*Delete Heading: *POVOA DE VARZIM:							
3156 D 2020	-Regufe.						Remove from list.	
							*	1/03
	*Add Heading: *POVOA DE VARZIM:							
3160 D 2020.4	-Molhe Norte, head.	41° 22.2′ N 8° 46.2′ W		46 14	12	Metal tower; 16.		
								1/03
*3413 D 2127.3	-VTS Alges Pier, head.	38° 41.6′ N 9° 14.0′ W	FI.(2)R. period 5s fl. 1s, ec. 1s fl. 1s, ec. 2s	20 6	7	White post, red bands; 7.		
								1/03
*3413.3 D 2127.31	-MR Pier, head.	38° 41.7′ N 9° 14.0′ W		20 6	4	White post, green bands; 7.		
								1/03
	MARSEILLE, NORTH ENTRANG	CE:						
6572 E 0634	-Dique Exterieure, N. end.	43° 20.9′ N 5° 19.1′ E		49 15	18	White tripod, green top marked "Marseille Nord"; 39.		
		*			*	*		1/03
14764 E 3926	Molos Kalavritas, head.	38° 14.9′ N 21° 43.7′ E		23 7	3	Metal framework on square hut, green band; 20.		
			*		*	*		1/03
14776 E 3920	Detached breakwater, elbow.	38° 15.3′ N 21° 44.0′ E	FI.G. period 1.5s fl. 0.3s, ec. 1.2s	10 3	3	Metal tower, green band; 7.	Visible 180°-035°.	
			*		*	*	*	1/03
14792 E 3942	-Navpaktos.	38° 23.5′ N 21° 49.7′ E		43 13	3	Iron column; 20.		
			*	*		*		1/03
14796 E 3946	-Akra Mornos.	38° 22.1′ N 21° 52.4′ E	FI.(3)W. period 15s fl. 0.3s, ec. 1.2s fl. 0.3s, ec. 1.2s fl. 0.3s, ec. 11.7s	23 7	7	Metal framework on square hut; 20.		
					*	*		1/03

CORRECTIONS TO PUB 113, LIST OF LIGHTS, 2002 EDITION								
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
14812 E 3958	-Akra Andromakhi.	38° 19.8′ N 22° 22.5′ E	FI.(3)W. period 15s fl. 1s, ec. 1.5s fl. 1s, ec. 1.5s fl. 1s, ec. 9s	53 16	10	Metal framework tower on round hut; 16.	Visible 235°-087°.	
			*		*	*	1/03	
14820 E 3962	-Ormos Galaxidhiou.	38° 22.8′ N 22° 23.2′ E	FI.R.G. period 1.5s fl. 0.3s, ec. 1.2s	39 12	3	Metal framework on round hut; 16.	R. 080°-216°, G347°, obsc 080°.	
			*	*	*	*	1/03	
16064 E 4790	Limin Rethimnis, N. mole, head.	35° 22.4′ N 24° 29.0′ E	FI.G. period 3s fl. 1s, ec. 2s	33 10	12	Hexagonal hut, column with gallery, green band.		
				*		*	1/03	
16068 E 4791.4	Limin Rethimnis, S. mole, head.	35° 22.2′ N 24° 29.0′ E	FI.R. period 4s fl. 1s, ec. 3s	39 12	6	White hexagonal hut, column with gallery, red band; 23.		
	*	*	*	*		*	1/03	
	*Add Heading: *NISOI VORIAI SPORADHES:							
*16443 E 4453.9	-Akhili Marina, N. mole, head.	38° 52.1′ N 24° 34.2′ E		23 7	3	Metal framework, gallery, metal column, green band.		
*							1/03	
16443.1 4 4 53.91	S. mole, head.	38° 52.0′ N 24° 34.2′ E	FI.R. period 3s fl. 0.3s, ec. 2.7s	23 7	3	Metal framework, gallery, metal column, red band.		
							1/03	
	*Delete Heading: *NISOI VORIAI SPORADHES:							
16444 E 4454	-Akra Lithari.	38° 46.5′ N 24° 40.8′ E	FI.(3)W. period 30s fl. 1s, ec. 3.5s fl. 1s, ec. 3.5s fl. 1s, ec. 20s	315 96	16	Round tower, dwelling; 40.	Visible 189°-067°.	
							1/03	
21370 E 6174	Great Pass.	31° 10.0′ N 29° 48.5′ E	FI.W. period 4s fl. 1s, ec. 3s	69 21	16	White cylindrical concrete tower, red and green bands.		
	RACON		M()					
	*		*	*		*	1/03	

		COR	RECTIONS TO PUB 1	14, LIST OF	LIGHTS, 2	002 EDITION	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
1224 A 0970	-VARNE LIGHTSHIP.	51° 01.2′ N 1° 24.0′ E	FI.R. period 20s fl. 0.3s, ec. 19.7s	39 12	19	Red hull, light tower amidships.	Nautophone: 1 bl. ev. 30s (bl. 3s, si. 27s).
	-RACON		T(-) period 60s fl. 20s, ec. 40s		10		
			*				1/03
1676 A 2342	Cromer.	52° 55.5′ N 1° 19.1′ E	FI.W. period 5s fl. 0.1s, ec. 4.9s	276 84	23	White octagonal tower; 59.	Visible 102°-307°. Shown 24 hours.
	RACON		O() period 60s fl. 20s, ec. 40s		25		
			*				1/03
8340 <i>A 1476</i>	Fort de l'Est.	49° 40.3′ N 1° 35.9′ W		62 19	9	White pylon, green top; 30.	
		*	*		*		* 1/03
		COR	RECTIONS TO PUB 1	15, LIST OF	LIGHTS, 2	2002 EDITION	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
1780 <i>B 3106</i>	-Brekneholmen, mole, head.	58° 05.7′ N 6° 35.0′ E	Iso.W.R.G. period 6s	29 9	W. 11 R. 7 G. 7	Beacon.	W. 246°-306°30′, G330°, R 002°, W127°, R156°.
		*				*	* 1/03
1782 <i>B 3109</i>	W. mole, head.						Remove from list.
							* 1/03
		COR	RECTIONS TO PUB 1	16, LIST OF	LIGHTS, 2	2002 EDITION	
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	GOTEBORG APPROACH:						
1176 C 0628	-Valo (Varo), E. end.	57° 33.0′ N 11° 48.1′ E	L.FI.W.R.G. period 8s	49 15	W. 10 R. 7 G. 6	White concrete tower, green band; 34.	R. (unintensified) 170°-174°, R 178°30', G270°, W271°30', R291°30', G344°, W 345°30', R354°30', G 001°30', W006°, R033°,
	*	*	*		*		G039°, obsc170°.
							1/03
8044 C 7306	-Jungfrun.						Remove from list.
							* 1/03

CORRECTIONS TO PUB 116, LIST OF LIGHTS, 2002 EDITION								
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
9116 <i>C 6477</i>	Vasterhalet.	59° 17.5′ N (18° 52.7′ E	Q.W.	26 8	3	Gray cairn.	Visible 165°-275°.	
	RACON		Г(-) period 30s					
		*	*					1/03

SECTION II NM 1/03

PUBLICATIONS AFFECTED BY NOTICE TO MARINERS THROUGH NM 1/03

Note: * indicates New Edition/New Publication; ** indicates Publication Canceled; N indicates Not For Sale

Note	. 1110	ileates New Edition	Tiew I dolleation,	muica	ico i ubilcatibil Cal	Thurst in the states in	01 1 01	Duic
NIMA Reference No.	Ed.	Notice to Mariners No.	NIMA Reference No.	Ed.	Notice to Mariners No.	NIMA Reference No.	Ed.	Notice to Mariners No.
NIMA HYDRO CAT	ALOG	CATP2V01II	SDPUB145	2000	13*,14,18,19,22,26,	COMDTM165023	2002	35*,36,37,40,41,42,
Region 1	2002	1/03*			32,37,38,46,47,51,			43,44,45,46,47,48,
Region 2		1/03*			53/00;1,4,5,7,10,12,	COMPTM165024	2002	49,50,51/02;1/03
Region 3 Region 4		1/03* 1/03*			28,29,35,52/01;14, 27/02	COMDTM165024	2002	30*,31,32,33,34,35, 36,37,40,41,42,43,
Region 5		1/03*	SDPUB146	2000				45,46,47,48,49,50,
Region 6		1/03*			46,48,51/00;2,5,10,			51,52/02;1/03
Region 7	2002 2002	1/03* 1/03*			27,28,29,31,38/01; 15,29/02	COMDTM165025 COMDTM165026	2002 2002	16/02* 35*,36,40,41,42,43,
Region 8 Region 9	2002		SDPUB147	2001		COMD TWT03020	2002	44,45,46,47,48,49,
Miscellaneous Charts		1/03*	CDDIID 140	2001	24/02	GO) (DT) (1 (5007	2002	50,51,52/02;1/03
and Publications			SDPUB148 SDPUB153	2001 2000	48/01*;23,24/02 6/01*;28,30,41,44,	COMDTM165027	2002	16*,17,18,19,20,21, 22,23,25,27,29,30,
NIMA LIST OF LIG	птс				46,47,48,52/02;1/03			32,33,34,36,37,40,
LLPUB110	2002	8*,12,13,14,15,16,	SDPUB154	2002	17*,19,31,42,44,45, 46,48,50/02			43,45,46,47,48,50, 51,52/02;1/03
		17,18,19,20,21,23,	SDPUB155	2001	31*,48/01;10,45,			31,32/02,1/03
		24,26,27,29,30,31, 32,33,34,35,36,37,	CD DV ID 155	2000	46/02	FLEET GUIDES		
		38,39,40,41,42,43,	SDPUB157	2000	20*,27,29,33,34,35, 38,41,44,48/00;1,3,	FGPUB940ATL		N47/01*
		44,45,47,49,50/02;			4,6,7,11,12,13,21,	FGPUB941PAC	2001	N22/01*
LLPUB111	2002	1/03 35*,36,37,38,39,40,			23,32,47/01;2,5,9,	NOC MICCELL AND	EOTIC I	DUDI ICATIONS
DDI ODIII	2002	41,42,43,44,45,46,			13,14,20,22,27, 38/02	NOS MISCELLANI NOSPBCATALOG1		20/00*
		47,48,50,51,52/02;	SDPUB158	2000	50/00*;5,10,12,13,	NOSPBCATALOG2		34/00*
LLPUB112	2001	1/03 5*,7,8,9,10,11,12,			15,17,20,24/01; 46/02	NOSPBCATALOG3	2000	
		13,14,15,16,17,18,	SDPUB159	2002	42*,48/02	NOSPBCATALOG4	2000	34/00*
		19,20,21,22,23,24, 25,26,27,28,29,30,	SDPUB160	2002	47*,48,49,52/02	ALMANACS		
		31,32,33,34,35,36,	SDPUB161 SDPUB162	2002 2001	23*,24,44,47,48/02 51/01*	AIRALMANAC301	2003	44/02*
		37,38,39,40,41,42,	SDPUB163	2002	18*,20,21,26,46,	NAUTALMANAC03	2003	44/02*
		43,44,45,46,47,48, 49,50,51,52/02;1/03	CDDI ID 1 64	2000	51/02			
LLPUB113	2002	45*,47,48,50,51,	SDPUB164 SDPUB171	2000 2001	30/00*;31,35,36/01 40*,47,48,52/01;5,9,	COAST PILOT	22	27* 20 41 47 51/01.
T I DIUD 114	2002	52/02;1/03			14,16,41/02	NOSPBCP1	32	37*,39,41,47,51/01; 1,5,7,13,18,33,37,
LLPUB114	2002	13*,15,16,17,19,20, 21,22,23,24,31,32,	SDPUB172	2001	1*,2,3,5,6,7,8,9,14,			39,42,45,49,51/02
		34,35,36,38,39,40,			15,16,17,18,19,20, 22,24/02;1/03	NOSPBCP2	31	44*,47,51,52/01;5,7, 12,13,18,23,33,37,
		41,43,45,46,47,48,	SDPUB173	2002	50*,51/02			39 42 45 48 51/02
LLPUB115	2002	49,51/02;1/03 39*,40,41,44,45,50,	SDPUB174	2000	7*,19,37,45,51, 52/01;1,5,14,19,22,	NOSPBCP3	35	3*,5,7,12,15,17,18,
******		51,52/02;1/03			28,33,37,38,48/02			21,22,27,28,33,37, 42,45,49,51/02
LLPUB116	2002	18*,20,21,22,24,25, 26,27,29,31,34,37,	SDPUB175	2001	41*,43,45,51/01;8, 11,12,13,14,16,17,	NOSPBCP4	34	49*,51/02
		41,42,44,45,46,47,			21,27,37,41,49/02	NOSPBCP5	29	49*,51/01;1,6,12,13, 15,16,17,20,21,33,
		48,49,50,52/02;1/03	SDPUB180	2002	32*,33,42,47,48,			34,37,39,42,47,49,
SAILING DIRECTION	ONS		SDPUB181	2002	50/02 38*,39/02	NOSPBCP6	32	51/02 19*,20,21,33,39,45,
SDPUB120		12*,18,48,49,51/01;	SDPUB182	2001	8*,10,12,41/02	NOSI BCI 0	32	47,49,51/02
		8,13,14,21,22,24,29, 33,35,37,42,43,44,	SDPUB183 SDPUB191	2001 2000	27/01*;13,15,16/02 5*,7,8,9,10,11,12,	NOSPBCP7 NOSPBCP8	34 24	1/03* 3*,5,16,17,19,23,33,
		45,47/02			13,14,15,16,17,18,	NOSFBCF8	24	37,40,47,50,51/02
SDPUB123	2001	45*,47,48/01;1,14,			19,20,22,23,27,28, 29,30,31,33,34,36,	NOSPBCP9	20	12*,20,23,33,37,45,
SDPUB124	2001	17,18,19/02 18*,44,45,47,48,49,			44,45,47,48/01;10,			50,51/02
		52/01;17,19,20,21,			14,15,16,17,42, 50/02	RADIO NAVIGATI	ONAL.	AIDS
		29,30,31,34,46, 50/02	SDPUB192	2000	14*.16.17.18.24.26.	RAPUB117		50/02*
SDPUB125	2000	6*,9,10,20,21,40/00;			31,36,38,39,46/00;4,			
		36,37,45,46/01;14, 17,33,35,38,40/02			14,17,21,22,23,25, 26,28,30,31,32/01;	AMERICAN PRAC NVPUB9		NAVIGATOR 36/02*
SDPUB126	2002	39*,41,42,43,44,45,			11,12,13,14,15,16,	IN V F U D 7	2002	30/04
SDPUB127	2000	48/02 37*,38/00;18,33,40,			22,23,27,36,37,42, 48,52/02	INTERNATIONAL	CODE	OF SIGNALS
5D1 (D12)	2000	44,45,48,49,52/01;1,	SDPUB193	2000	27*,38,49/00;9,26,	NVPUB102		46/99*;52/01
		11,13,17,18,27,33,			27,31,32/01;14,15, 26,52/02			
		34,37,41,47,49, 51/02	SDPUB194	2000	51/00*;9,11,24,26,	WORLD PORT INI NVPUB150	DEX 2000	50/00*;14,15,16,20,
SDPUB131	2000	13*,18,21,25,29,30,			29,32,34,35/01;11, 14,18,19,20,22,23,	INVI OBISO	2000	21,41,42,43,44,45,
		33,37,51/00;4,15,19, 28,49,52/01;22,23,			24,25,26,27,29,30,			46,47,48,49,51,
		24,25,26,27,32,33,	CDDI ID 105	2002	33/02			52/01;1,2,5,6,10,11, 12,16,19,21,22,27,
		37,38,39,40,43, 44/02	SDPUB195	2002	33*,40,49,51,52/02; 1/03			31,32,33,36,39,40,
SDPUB132	2000		SDPUB200	2002	38*,39,42/02			42,46,49/02
-		35/01;1,12,21,25,				DISTANCES BETW	AEEN I	PORTS
SDPUB140	2001	26/02 21*,48,49,51/01;8,	USCG LIGHT LIST			NVPUB151		4/02*
SDI OD170	2001	17,23,32,42,43,44,	COMDTM165021	2002	30*,31,32,33,34,35, 36,37,39,40,41,42,			-
SDPUB141	2001	46,47,48,50/02 21*,38/01			43,44,45,46,47,48,	RADAR NAVIGATI		
SDPUB141 SDPUB142	2000	49/00*;3,31,35/01;	COMDTM165022	2002	49,50,51,52/02;1/03 16*,17,18,19,20,21,	MANEUVERING B		
		1,15,43/02	551112 11V1103022	2002	22,23,25,26,27,28,	CDPUBNV1310	2001	51/01*
SDPUB143	2000	8*,10,19,29/00;16, 26/01;1,25/02			29,30,31,32,33,34, 35,36,37,40,41,42,	SIGHT REDUCTIO	N TAR	BLES (MARINE)
					43,44,45,46,47,48,	SRPUB229V1	1970	11/71*
					49,50,51,52/02;1/03	SRPUB229V2	1970	11/71*
			1			T.		

SECTION II NM 1/03

PUBLICATIONS AFFECTED BY NOTICE TO MARINERS THROUGH NM 1/03

No	ote: * indicates New Edit	tion/New Publication; ** indic	ates Publication Canceled; N in	dicates Not For Sale
NIMA Reference No.	Ed. Notice to Mariners No.			
SRPUB229V3 SRPUB229V4 SRPUB229V5 SRPUB229V6	1970 7/71* 1970 3/71* 1970 3/71* 1970 23/70*			
SIGHT REDUCT	ION TABLES (AIR) 2000 4/01*			
SRPUB249V2 SRPUB249V3	1952 46/52* 1952 46/52*			
CHART NO. 1 WOBZC1	1997 18/98*			
CHART NO. 4 WOBZC4	1988 N20/89*			
ATLAS OF PILO NVPUB107 NVPUB109	T CHARTS 1998 30/99* 2001 49/02*			
USCG NAVIGATI COMDTM166722D	ON RULES 1999 44/99*;52/00			
NOS TIDE TABLE NOSPBTTCWPACIN NOSPBTTECSTNSA NOSPBTTEURAFR2 NOSPBTTWCSTNSA	2 2002 N52/01* 2 2002 N52/01* 2002 N52/01*			
TIDAL CURREN NOSPBTCTATCSTN NOSPBTCTPACAS2	T TABLES 2 2002 N52/01*;N9/02 2002 N52/01*			

SECTION III NM 1/03

BROADCAST WARNINGS

Details concerning the particulars of the broadcasting of radio navigational warnings may be found in Radio Navigational Aids, Pub. 117.

NAVAREA IV

Messages in force 191200Z December 2002:

2001 series	219(GEN)	365(14)	457(11)	487(11)	496(GEN)
393(GEN)	346(GEN)	367(GEN)	468(GEN)	493(11,26)	499(GEN)
2002 series	351(11)	383(11,26)	480(11)	494(11,26)	

The summary of all NAVAREA IV messages in force as of 12 December 2002 is given in Section III of NM 52/02.

NAVAREA IV WARNINGS issued from 121200Z to 191200Z December 2002.

486/02. CANCELED.

487/02(11). GULF OF MEXICO.

- 1. GEOPHYSICAL OPERATIONS 13 DEC THRU 15 MAR BY M/V ZEPHYR 1 TOWING 8250 METER LONG CABLE IN AREA BETWEEN 27-00N 29-38N AND 092-15W 093-50W. FIVE MILE BERTH REQUESTED.
- 2. CANCEL NAVAREA IV 443/02, DTG 121542Z DEC, MSG PROMULGATED IN ERROR.
- 3. CANCEL NAVAREA IV 486/02.
- 4. CANCEL THIS MSG 16 MAR 03.

(121624Z DEC 2002)

488/02 thru 492/02. CANCELED.

493/02(11,26). NORTH ATLANTIC.

- 1. PYROTECHNICS EXERCISES 131900Z TO 250500Z DEC WITHIN TEN MILES OF 29-11N 078-23W.
- 2. CANCEL THIS MSG 250600Z DEC.

(131523Z DEC 2002)

494/02(11,26). NORTH ATLANTIC. HAZARDOUS OPERATIONS.

1. HAZARDOUS OPERATIONS:

A. 0500Z TO 0459Z COMMENCING DAILY 16 THRU 22 DEC

IN AREA BOUND BY

30-45.0N 080-32.0W, 30-45.0N 079-40.0W, 30-37.5N 079-40.0W, 30-34.0N 080-33.0W.

B. 0500Z TO 0459Z COMMENCING DAILY 16 THRU 22 DEC

IN AREA BETWEEN

29-20.0N 29-10.0N AND 079-50.0W 079-40.0W.

C. 180001Z TO 180300Z DEC IN AREA BOUND BY

30-35.0N 081-21.0W, 30-35.0N 081-00.0W, 30-00.0N 081-02.0W, 30-00.0N 081-15.0W.

D. 190001Z TO 190459Z AND 191300Z TO 200459Z DEC

IN AREA BETWEEN

30-00.0N 29-50.0N AND 080-50.0W 081-00.0W.

2. CANCEL THIS MSG 230559Z DEC.

(131535Z DEC 2002)

495/02. CANCELED.

496/02(GEN).

1. NAVAREA IV MESSAGES IN FORCE 141200Z DEC 2002. ONLY THOSE MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN. 2002 SERIES: 457(11), 468(GEN), 474(11,26), 480(11),

2002 SERIES: 437(11), 406(GEN), 474(11,26), 460(11), 481(11), 485(24,51), 487(11), 490(24), 491(13), 492(11), 493(11,26), 494(11,26), 495(GEN).

2. THE SUMMARY OF ALL NAVAREA IV MESSAGES IN FORCE AS OF 13 DEC 2001 IS GIVEN IN SEC III OF NM 52/01. WARNINGS ISSUED DURING THE SUBSEQUENT QUARTERS ARE SUMMARIZED IN NM 13/02, 26/02 AND 39/02.

3. CANCEL NAVAREA IV 477/02.

(141205Z DEC 2002)

497/02 and 498/02. CANCELED.

499/02(GEN). GPS SATELLITE SYSTEM.

- 1. PRN 04 UNUSABLE 192100Z TO 200900Z DEC.
- 2. CANCEL THIS MSG 201000Z DEC.

(161501Z DEC 2002)

500/02 thru 504/02. CANCELED.

SECTION III NM 1/03

HYDROLANTS

Messages in force 191200Z December 2002:

2000 series	3161(44)	2171(57)	2588(24)	2753(24)	2783(24)
1569(36)	2002 series	2203(51)	2627(37)	2755(57)	2784(24)
2353(36)	11(54)	2294(53)	2633(54)	2761(38)	2785(23)
2937(38)	134(37)	2307(24)	2654(24)	2762(GEN)	2787(23)
3762(43)	245(GEN)	2354(53)	2673(GEN)	2763(55)	2789(51)
4265(44)	246(GEN)	2421(54)	2680(52)	2764(55)	2790(23)
2001 series	321(52)	2465(54,56)	2681(52,53)	2767(37)	2791(35,36)
470(53)	349(54)	2470(37)	2682(51)	2769(23)	2792(24)
611(44)	383(53)	2484(22)	2705(52)	2770(36)	2793(23)
1116(36)	946(53)	2489(53,54)	2711(54)	2771(24)	2794(57)
1798(37)	1065(53)	2493(54,56)	2728(55)	2772(24)	2795(37)
1885(44)	1066(37)	2508(24)	2729(37)	2773(24)	2796(23)
2066(37)	1159(51)	2511(52,53)	2730(37)	2774(24)	2797(23)
2659(GEN)	1290(53)	2526(51,57)	2733(52)	2776(24)	2799(54)
2700(37)	1485(24)	2550(GEN)	2737(35,36)	2777(36,37,51,52)	2800(23)
2706(37)	1895(23)	2554(35)	2739(53)	2778(23)	
2864(53)	2027(GEN)	2567(36,37,51)	2743(14,38)	2779(57)	
2916(37)	2105(53)	2568(56)	2750(24,57)	2780(23)	
2948(36)	2156(GEN)	2575(56)	2751(GEN)	2782(23)	

The summary of all HYDROLANTS in force as of 12 December 2002 is given in Section III of NM 52/02.

HYDROLANT WARNINGS issued from 121200Z to 191200Z December 2002.

2736/02. CANCELED.

2737/02(35,36). IRELAND-SOUTH COAST. SEISMIC SURVEY IN PROGRESS UNTIL FURTHER NOTICE BY M/V GEO SURVEYOR TOWING 1200 METER LONG CABLE WITHIN SEVEN MILES OF 51-10N 008-20W. WIDE BERTH REQUESTED.

(121644Z DEC 2002)

2738/02. CANCELED.

2739/02(53). TYRRHENIAN SEA.

1. PERSON MISSING FROM VESSEL BETWEEN CAGLIARI, ARBATAXTO AND CIVITAVECCHIA. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MRCC ROME, PHONE: 390 6592 4145. 2. CANCEL HYDROLANT 2736/02.

(130625Z DEC 2002)

2740/02 thru 2742/02. CANCELED.

2743/02(14,38). NORTH ATLANTIC.

- 1. DERELICT LIFERAFT ADRIFT VICINITY 44-59N 033-04W AT 130900Z DEC.
- 2. CANCEL THIS MSG 20 DEC.

(131951Z DEC 2002)

2744/02 thru 2749/02. CANCELED.

2750/02(24,57). SOUTH ATLANTIC.

1. OCEANOGRAPHIC OPERATIONS 17 DEC TO 03 JAN BY M/V LE SUROIT IN AREA BOUND BY 00-00 023-00W, 10-00S 010-00W, 06-00S 010-00W, 00-00 010-00W.

2. CANCEL THIS MSG 04 JAN 03.

(140935Z DEC 2002)

2751/02(GEN).

1. HYDROLANT MESSAGES IN FORCE 141200Z DEC 2002. ONLY THOSE MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN. 2002 SERIES: 2465(54,56), 2470(37), 2484(22), 2486(36), 2489(53,54), 2493(54,56), 2508(24), 2511(52,53), 2526(51,57), 2550(GEN), 2554(35), 2566(57), 2567(36,37,51), 2568(56), 2575(56), 2588(24), 2627(37), 2633(54), 2645(53), 2654(24), 2673(GEN), 2680(52), 2681(52,53), 2682(51), 2687(37), 2705(52), 2709(36), 2711(54), 2713(37), 2715(37), 2723(23,29), 2725(24),

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2726(24), 2728(55), 2729(37), 2730(37), 2733(52), 2735(24,51),
     2737(35,36), 2738(24), 2739(53), 2740(53), 2741(GEN), 2742(51),
     2743(14,38), 2744(37), 2745(24), 2746(24), 2747(24), 2748(24),
     2749(24), 2750(24,57).
   2. THE SÚMMARY OF ALL HYDROLANT MESSAGES IN FORCE AS OF 13 DEC 2001
     IS GIVEN IN SEC III OF NM 52/01. WARNINGS ISSUED DURING THE
     SUBSEQUENT QUARTERS ARE SUMMARIZED IN NM 13/02, 26/02 AND 39/02.
   3. CANCEL HYDROLANT 2372/02, 2394/02, 2696/02.
2752/02. CANCELED.
2753/02(24). BRAZIL TO ARGENTINA.
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(141210Z DEC 2002)

M/V LIFE SARVE UNREPORTED SANTOS TO BUENOS AIRES. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO ANY COASTAL RADIO STATION.

(150233Z DEC 2002)

2754/02. CANCELED.

2755/02(57). GULF OF GUINEA.

1. UNDERWATER OPERATIONS IN PROGRESS UNTIL FURTHER NOTICE BY M/V SAIPEM 10000 VICINITY 05-45N 004-28E. ONE MILE BERTH REQUESTED.

2. CANCEL HYDROLANT 2566/02

(150840Z DEC 2002)

2756/02 thru 2760/02. CANCELED.

2761/02(38). NORTH ATLANTIC. ORDNANCE 1. UNDERWATER ORDNANCE DETONATIONS 200001Z TO 202359Z DEC IN AREA BETWEEN 68-30N 70-00N AND 019-00W 015-00W.

2. CANCEL THIS MSG 210059Z DEC.

(161447Z DEC 2002)

2762/02(GEN). GPS SATELLITE SYSTEM.

1. PRN 04 UNUSABLE 192100Z TO 200900Z DEC.

2. CANCEL THIS MSG 201000Z DEC.

(161503Z DEC 2002)

2763/02(55). BLACK SEA.

1. SEISMIC SURVEY IN PROGRESS UNTIL 31 DEC BY 1. SEISMIC SURVEY IN PROGRESS UNTIL 31 DEC BY M/V AKADEMIK SHATSKIY TOWING 6000 METER LONG CABLE IN AREA BOUND BY 43-52.4N 038-00.6E, 44-01.8N 038-08.3E, 43-55.2N 038-25.5E, 43-53.8N 038-24.5E, 43-43.0N 038-52.0E, 43-34.8N 038-46.0E. WIDE BERTH REQUESTED. 2. CANCEL HYDROLANT 2382/02.

3. CANCEL THIS MSG 01 JAN 03.

(161621Z DEC 2002)

2764/02(55). AZOVSKOYE MORE.

1. SEISMIC SURVEY IN PROGRESS UNTIL 31 DEC BY M/V ISKATEL 3 TOWING 4500 METER LONG CABLE IN AREA BOUND BY 46-05.4N 036-50.0E, 46-13.0N 036-50.0E, 46-16.1N 036-57.8E, 46-16.1N 037-15.8E, 46-05.4N 037-15.8E

2. CANCEL THIS MSG 01 JAN 03.

(161818Z DEC 2002)

2765/02 and 2766/02. CANCELED.

2767/02(37). DOVER STRAIT.

CHART 37129 (6TH ED).

1. DANGEROUS WRECKS MARKED BY: A. TWO BUOYS, FL G 4 SEC, IN 51-21.90N 002-12.65E. VESSELS REQUESTED TO PASS WELL SOUTH OF BUOYS. B. BUOY IN 51-19.4N 002-13.7E.

2. CANCEL HYDROLANT 2765/02.

(162316Z DEC 2002)

2768/02. CANCELED.

2769/02(23). SOUTH ATLANTIC. ICE.

1. LARGE ICEBERG REPORTED IN 52-41.0S 049-03.4W AT 162300Z DEC.

2. CANCEL THIS MSG 24 DEC.

(170109Z DEC 2002)

SECTION III NM 1/03

2770/02(36). IRELAND-EAST COAST.

CHART 36040 (16TH ED).

ARKLOW LANBY 52-40N 005-58W LIGHT UNRELIABLE.

(170250Z DEC 2002)

2771/02(24). BRAZIL-SOUTH COAST.

1. SEISMIC SURVEY IN PROGRESS UNTIL 210200Z DEC BY M/V VERITAS VIKING I TOWING 5400 METER LONG CABLE IN AREA BETWEEN 23-50S 24-30S AND 044-35W 043-50W. SIX MILE BERTH REQUESTED.

2. CANCEL THIS MSG 210300Z DEC.

(170532Z DEC 2002)

2772/02(24). BRAZIL-SOUTH COAST.

1. SEISMIC SURVEY IN PROGRESS UNTIL 210159Z DEC BY M/V CGG ALIZE TOWING EIGHT 6000 METER LONG CABLES IN AREA BETWEEN 25-40S 26-50S AND 044-25W 045-15W. FIVE MILE BERTH REQUESTED.

2. CANCEL THIS MSG 210259Z DEC.

(170545Z DEC 2002)

2773/02(24). BRAZIL-EAST COAST.

1. SEISMIC SURVEY IN PROGRESS UNTIL 19 DEC BY M/V BULLDOG TOWING 15 METER LONG CABLE IN AREA BOUND BY 11-07.9S 037-07.2W, 11-07.4S 037-06.5W, 11-13.0S 036-58.2W, 11-13.8S 036-58.7W. WIDE BERTH REQUESTED.

2. CANCEL THIS MSG 20 DEC.

(170600Z DEC 2002)

2774/02(24). BRAZIL-SOUTHEAST COAST.

1. SEISMIC SURVEY IN PROGRESS UNTIL 210159Z DEC BY M/V CGG HARMATTAN TOWING EIGHT 4500 METER LONG CABLES IN AREA BETWEEN 22-35S 22-55S AND 040-30W 041-00W. FOUR MILE BERTH REQUESTED.

2. CANCEL THIS MSG 210259Z DEC.

(170621Z DEC 2002)

2775/02. CANCELED.

2776/02(24). BRAZIL-EAST COAST.

- 1. SEISMIC SURVEY IN PROGRESS UNTIL 210159Z DEC BY M/V VERITAS VIKING II TOWING SIX 7408 METER LONG CABLES IN AREA BETWEEN 19-06.5S 20-06.1S AND 038-31.5W 039-03.4W. SIX MILE BERTH REQUESTED.
- 2. CANCEL HYDROLANT 2645/02(53).
- 3. CANCEL THIS MSG 210259Z DEC.

(171409Z DEC 2002)

2777/02(36,37,51,52). SPAIN.

1. FROM 01 JAN UNTIL FURTHER NOTICE SINGLE-HULL OIL TANKERS (ALL FLAGS) CARRYING HEAVY FUEL, TAR, ASPHALTIC BITUMEN OR HEAVY CRUDE OIL, ARE FORBIDDEN ENTRY INTO SPANISH PORTS, TERMINALS OR MOORING AREAS. UNTIL 01 JAN THE AFOREMENTIONED VESSELS SHOULD NOTIFY THE MARITIME AUTHORITY 24 HOURS IN ADVANCE OF THEIR INTENTIONS TO ENTER PORT, TERMINAL OR MOORING AREA, FOR THE MARITIME AUTHORITY TO EXERCISE APPLICABLE CONTROL OR MONITORING.

2. CANCEL HYDROLANT 2759/02.

(171428Z DEC 2002)

2778/02(23). SOUTH ATLANTIC. ICE.

1. ICEBERGS REPORTED:

A. IN 52-21.5S 044-12.1W AT 171430Z DEC.

B. IN 52-13.7S 042-49.5W AT 171725Z DEC.

C. IN 51-48.8S 043-12.9W AT 171617Z DEC.

2. CANCEL THIS MSG 24 DEC.

(171748Z DEC 2002)

2779/02(57). SOUTH ATLANTIC.

1. SEISMIC SURVEY 18 DEC THRU 15 JAN BY M/V CGG FOHN TOWING SIX 3 MILE LONG CABLES IN AREA BETWEEN 07-10S 08-20S AND 011-15E 012-10E. WIDE BERTH REQUESTED.

3. CANCEL THIS MSG 16 JAN 03.

(172014Z DEC 2002)

2780/02(23). SOUTH ATLANTIC. ICE.

1. LARGE ICEBERG REPORTED IN 52-01.6S 041-53.5W AT 172120Z DEC.

2. CANCEL THIS MSG 24 DEC.

(172127Z DEC 2002)

2781/02. CANCELED.

2782/02(23). SOUTH ATLANTIC. ICE.

1. ICEBERGS REPORTED:

A. IN 51-56.3S 041-01.0W AT 180032Z DEC.

B. IN 52-01.7S 040-50.8W AT 180120Z DEC.

2. CANCEL THIS MSG 25 DEC.

(180307Z DEC 2002)

2783/02(24). BRAZIL-NORTH COAST.

1. SEISMIC SURVEY IN PROGRESS UNTIL 20 DEC BY M/V RAMFORM EXPLORER TOWING EIGHT 6853 METER LONG CABLES IN AREA BOUND BY 00-17.5S 043-42.8W, 00-29.0S 043-32.0W 00-51.7S 043-56.0W, 00-39.0S 044-06.8W.

FIVE MILE BERTH REQUESTED. 2. CANCEL THIS MSG 21 DEC.

(180518Z DEC 2002)

2784/02(24). BRAZIL-EAST COAST.

CHÀRT 24200 (14TH ED).

- 1. MORRO DE SAO PAULO LIGHT 13-22.3S 038-54.9W UNLIT.
- 2. CANCEL HYDROLANT 2760/02.

(180538Z DEC 2002)

2785/02(23). SOUTH ATLANTIC. ICE.

- 1. LARGE ICEBERGS SIGHTED IN:
- A. 52-17.3S 040-20.1W AT 180253Z DEC.
- B. 52-07.8S 039-57.7W AT 180411Z DEC.
- D. 51-50.5S 039-36.7W AT 180456Z DEC. D. 51-50.5S 039-46.7W AT 180503Z DEC. E. 51-58.9S 039-39.5W AT 180526Z DEC.

2. CANCEL THIS MSG 25 DEC.

(180741Z DEC 2002)

2786/02. CANCELED.

2787/02(23). SOUTH ATLANTIC. ICE.

1. ICEBERGS SIGHTED IN:

- A. 52-00.5S 039-31.0W AT 180555Z DEC.
- B. 52-09.3S 039-30.5W AT 180601Z DEC. C. 51-57.1S 039-07.0W AT 180709Z DEC.
- D. 52-07.6S 038-59.3W AT 180718Z DEC. E. 52-00.3S 038-58.9W AT 180727Z DEC.
- E. 52-40.35 036-36.5W AT 160/272 DEC. F. 51-38.5S 039-04.7W AT 180739Z DEC. G. 51-44.1S 038-54.3W AT 180800Z DEC. H. 51-42.3S 038-53.7W AT 180800Z DEC.
- I. 51-42.0S 038-50.0W AT 180800Z DEC.
- J. 51-39.7S 038-53.5W AT 180800Z DEC. K. 51-39.9S 038-55.4W AT 180800Z DEC.
- L. 51-35.8S 038-44.5W AT 180800Z DEC
- M. 51-52.4S 038-47.8W AT 180800Z DEC.
- N. 51-57.2S 038-26.1W AT 180822Z DEC. O. 52-03.4S 038-28.7W AT 180822Z DEC.
- 2. CANCEL THIS MSG 25 DEC.

(181016Z DEC 2002)

2788/02. CANCELED.

2789/02(51). CANARY ISLANDS TO CAPE VERDE.

TEN METER S/V ANTLIA, WHITE HULL, ONE PERSON ON BOARD, OVERDUE CANARY ISLANDS TO CAPE VERDE. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MRCC GRIS NEZ, TELEX: 4213 4002, PHONE: 333 2187 2187, FAX: 333 2187 7855

(181358Z DEC 2002)

2790/02(23). SOUTH ATLANTIC. ICE.

1. ICEBERGS SIGHTED:

- A. IN 51-38.2S 038-06.2W AT 181024Z DEC.
- B. IN 51-53.6S 037-54.6W AT 181107Z DEC. C. IN 51-34.1S 037-50.4W AT 181112Z DEC.

- C. IN 51-54.1S 037-50.4W AT 181112Z DEC. D. IN 51-58.0S 037-48.6W AT 181127Z DEC. E. IN 51-58.0S 037-42.3W AT 181148Z DEC. D. IN 51-59.3S 037-41.5W AT 181151Z DEC. E. IN 51-55.3S 037-40.4W AT 181155Z DEC.
- F. IN 51-57.7S 037-31.6W AT 181223Z DEC.
- 2. CANCEL THIS MSG 25 DEC.

(181550Z DEC 2002)

SECTION III NM 1/03

2791/02(35,36). IRELAND-SOUTH COAST. 1. LARGE FISHING NET WITH FLOATS ADRIFT VICINITY 51-31.4N 007-55.6W. 2. CANCEL THIS MSG 25 DEC. (181653Z DEC 2002) 2792/02(24). BRAZIL-SOUTH COAST. CHART 24140 (18TH ED). LAJE DE SANTOS LIGHT 24-19.2S 046-10.9W UNLIT. (181723Z DEC 2002) 2793/02(23). SOUTH ATLANTIC. ICE. 1. ICEBERGS SIGHTED: A. IN 51-26.2S 037-03.2W AT 181347Z DEC. B. IN 51-37.8S 037-03.3W AT 181352Z DEC. C. IN 52-04.7S 037-06.2W AT 181354Z DEC. D. IN 51-56.6S 036-21.4W AT 181621Z DEC. E. IN 52-03.3S 036-15.1W AT 181627Z DEC. F. IN 51-41.6S 036-09.1W AT 181658Z DEC. 2. CANCEL THIS MSG 25 DEC. (181833Z DEC 2002) 2794/02(57). GULF OF GUINEA. FOR SECURITY REASONS, THE IVIORIAN AUTHORITIES ADVISES THAT ALL VESSELS, PARTICULARILY FISHING VESSELS, OPERATE AT LEAST THREE MILES OFF THE IROVY COAST. (181858Z DEC 2002) 2795/02(37). FRANCE-NORTHWEST COAST. CHART 37050 (9TH ED). SOUTHWEST LIGHTFLOAT 48-31.7N 005-49.1W AT REDUCED INTENSITY. (182000Z DEC 2002) 2796/02(23). SOUTH ATLANTIC. ICE. 1. ICEBERGS SIGHTED: A. IN 51-47.3S 035-51.1W AT 181751Z DEC. B. IN 51-31.4S 035-48.5W AT 181802Z DEC. C. IN 51-54.8S 035-11.7W AT 182002Z DEC. D. IN 51-59.4S 035-05.0W AT 182015Z DEC. 2. BERGY BIT SIGHTED IN 51-47.0S 35-09.0W AT 181621Z DEC. 3. CANCEL THIS MSG 25 DEC. (182110Z DEC 2002) 2797/02(23). SOUTH ATLANTIC. ICE. 1. ICEBERGS SIGHTED: A. IN 51-26.0S 034-40.9W AT 182136Z DEC. B. IN 51-37.9S 034-32.1W AT 182200Z DEC. C. IN 51-44.5S 034-29.6W AT 182205Z DEC. D. IN 51-49.1S 034-16.6W AT 182237Z DEC. E. IN 51-26.5S 034-26.5W AT 182250Z DEC. F. IN 51-42.0S 034-01.8W AT 182336Z DEC. G. IN 51-34.7S 033-56.5W AT 182350Z DEC. H. IN 51-29.0S 033-47.0W AT 190015Z DEC. I. IN 51-31.5S 033-45.7W AT 190025Z DEC. 2. CANCEL THIS MSG 26 DEC. (190130Z DEC 2002) 2798/02. CANCELED. 2799/02(54). ADRIATIC SEA. DISTRESS RECEIVED FROM VESSEL IN 43-21N 015-08E AT 190240Z DEC. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MRCC ROME, PHONE: 390 6592 4145. (190502Z DEC 2002) 2800/02(23). SOUTH ATLANTIC. ICE. 1. RADAR TARGETS REPORTED IN:

2801/02. CANCELED.

A. 51-48.5S 032-39.2W AT 190406Z DEC. B. 51-40.1S 032-35.6W AT 190406Z DEC. C. 51-44.6S 032-22.3W AT 190445Z DEC.

2. CANCEL THIS MSG 26 DEC.

(190553Z DEC 2002)

SECTION III NM 1/03

NAVAREA XII

Messages in force 191200Z December 2002:

2001 series 2002 series 260(GEN) 333(19) 349(18) 353(GEN) 298(GEN) 178(GEN) 270(GEN) 339(GEN) 351(GEN) 358(19)

The summary of all NAVAREA XII messages in force as of 12 December 2002 is given in Section III of NM 52/02.

NAVAREA XII WARNINGS issued from 121200Z to 191200Z December 2002.

350/02. CANCELED.

351/02(GEN).

- 1. NAVAREA XII MESSAGES IN FORCE 141200Z DEC 2002. ONLY THOSE MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN. 2002 SERIES: 333(19), 339(GEN), 347(18), 349(18), 350(GEN). 2. THE SUMMARY OF ALL NAVAREA XII MESSAGES IN FORCE AS OF 13 DEC 2001 IS GIVEN IN SEC III OF NM 52/01. WARNINGS
- ISSUED DURING THE SUBSEQUENT QUARTERS ARE SUMMARIZED IN NM 13/02, 26/02 AND 39/02.
- 3. CANCEL NAVAREA XII 345/02.

(141215Z DEC 2002)

352/02. CANCELED.

353/02(GEN). GPS SATELLITE SYSTEM.

- 1. PRN 04 UNUSABLE 192100Z TO 200900Z DEC.
- 2. CANCEL THIS MSG 201000Z DEC.

(161504Z DEC 2002)

354/02 thru 357/02. CANCELED.

- 358/02(19). NORTH PACIFIC. MISSILES.
 1. HAZARDOUS OPERATIONS 201630Z TO 201900Z DEC, ALTERNATE 211630Z TO 211900Z DEC IN AREA BOUND BY 30-38N 169-28W, 33-52N 171-24W, 34-21N 170-16W, 31-07N 168-20W.
 2. CANCEL THIS MSG 212000Z DEC.

(190157Z DEC 2002)

SECTION III NM 1/03

HYDROPACS

Messages in force 191200Z December 2002:

2000 :	1015(60)	2125(01.02)	2100/62)	2205(04.05)	2256(01)
2000 series	1315(62)	2125(91,92)	2199(63)	2285(94,97)	2356(81)
597(73)	1588(75)	2126(62)	2201(97)	2291(81)	2357(74)
1557(94)	1661(GEN)	2128(81)	2216(94,95)	2294(81,97)	2358(GEN)
2001 series	1757(GEN)	2134(81)	2218(94,95)	2298(63)	2363(75)
1556(71)	1765(71)	2138(96)	2219(94,95)	2302(22)	2364(93)
1636(96)	1842(22)	2144(81)	2220(71)	2309(63)	2368(93)
1647(GEN)	1843(22)	2145(94,97)	2223(81)	2310(97)	2369(63)
1976(62)	1893(74)	2146(81)	2224(22)	2317(81)	2370(GEN)
2062(61)	1971(63)	2148(74)	2226(81)	2318(75)	2371(22)
2002 series	2040(63)	2153(94)	2227(94,95)	2319(93)	2372(97)
146(62)	2056(76,83)	2154(81)	2228(95)	2321(81)	2374(63)
196(61)	2057(71,93)	2155(81)	2229(74)	2325(22)	2375(22)
205(GEN)	2067(91,92)	2156(72)	2234(63)	2330(62)	2376(97)
206(GEN)	2077(81)	2158(97)	2238(74)	2336(63)	2378(94)
207(93)	2078(83)	2159(92)	2242(95)	2337(61)	2379(22)
352(73)	2084(97)	2161(97)	2243(94,95)	2339(63)	2380(81,97)
403(72,73)	2093(71,72)	2162(76)	2255(61)	2343(62)	2381(75)
637(75)	2099(91,92)	2164(91)	2258(74)	2347(76)	2383(75)
753(62)	2101(81)	2178(29)	2269(81)	2348(22)	2387(21,22,83)
787(71)	2111(62)	2191(22)	2274(61)	2349(92)	
828(62)	2117(81)	2193(61)	2275(81)	2350(21,22,83)	
1078(72)	2120(97)	2195(73,74,82)	2277(GEN)	2352(63)	
1147(92)	2121(61)	2196(81)	2278(81)	2354(63)	

The summary of all HYDROPACS in force as of 12 December 2002 is given in Section III of NM 52/02.

HYDROPAC WARNINGS issued from 121200Z to 191200Z December 2002.

2345/02 and 2346/02. CANCELED.

2347/02(76). SOUTH PACIFIC. NEW ZEALAND.

OVERDUE TO NELSON. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MARITIME OPERATIONS NEW ZEALAND. INMARSAT-C: 4512 00067, PHONE: 644 914 5663, FAX: 644 914 5520 OR TAUPO MARITIME RADIO.

(130010Z DEC 2002)

2348/02(22). SOUTH PACIFIC. CHILE. HAZARDOUS OPERATIONS.

- 1. HAZARDOUS OPERATIONS 1100Z TO 2100Z DAILY 17 THRU 20 DEC IN AREA BETWEEN 36-23S 36-38S AND 073-58W 073-40W.
- 2. CANCEL THIS MSG 202200Z DEC.

(130035Z DEC 2002)

2349/02(92). PHILIPPINE SEA.

DISTRESS SIGNAL RECEIVED ON 121 MHZ IN 07-33.1N 127-53.5E. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO PAC RCC, TELEX: 392401, PHONE: 808 531 1112, FAX: 808 541 2123.

(130325Z DEC 2002)

2350/02(21,22,83). ILES MARQUISES TO PANAMA.

40 FOOT S/V MARATEA, TWO PERSONS ON BOARD, UNREPORTED ILES MARQUISES TO PANAMA. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO RCC ALAMEDA, TELEX: 2301 72343, PHONE: 510 437 3701.

(130810Z DEC 2002)

2351/02. CANCELED.

2352/02(63). INDIA-SOUTHWEST COAST. ROCKETS.

- 1. HAZARDOUS OPERATIONS 1300Z TO 1530Z DAILY 18, 19, 25 AND 26 DEC WITHIN 75 MILES OF 08-31.9N 076-52.1E.
- 2. CANCEL THIS MSG 261630Z DEC.

(131427Z DEC 2002)

2353/02. CANCELED.

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SECTION III
2354/02(63). INDIA-WEST COAST. HAZARDOUS OPERATIONS
     1. HAZARDOUS OPERATIONS 0230Z TO 1130Z DAILY 15 THRU 21 DEC
       WITHIN SIX MILES OF 14-01.0N 074-19.6E.
     2. CANCEL THIS MSG 211230Z DEC.
                                                                                                                                        (131437Z DEC 2002)
2355/02. CANCELED.
2356/02(81). NORTH PACIFIC.
     F/V HÁI AN NO.6 UNREPORTED EASTERN MARSHALL ISLANDS TO
     MAJURO ATOLL (07-03N 171-30E). LAST KNOWN POSITION
     09-21N 176-00E ON 08 DEC. VESSELS IN VICINITY
     REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
     REPORTS TO RCC HONOLULU, TELEX: 392401,
     PHONE: 808 541 2500, FAX: 808 541 2123.
                                                                                                                                        (131648Z DEC 2002)
2357/02(74). AUSTRALIA-NORTHEAST COAST.
     DISTRESS SIGNAL RECEIVED ON 121.5 MHZ VICINITY 16-29S 145-53E
     AT 140125Z DEC. VESSELS IN VICINITY REQUESTED TO KEEP A
     SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO RCC AUSTRALIA,
     TELEX: 7162025, PHONE: 612 6230 6811, FAX: 612 6230 6868
                                                                                                                                        (140450Z DEC 2002)
2358/02(GEN).
     1. HYDROPAC MESSAGES IN FORCE 141200Z DEC 2002. ONLY THOSE
        MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN.
        2002 SERIES: 2056(76,83), 2057(71,93), 2067(91,92), 2077(81),
        2078(83), 2084(97), 2093(71,72), 2099(91,92), 2101(81),
    2018(63), 22084(97), 2093(17,2), 2099(19,92), 210(81), 2126(62), 2111(62), 2117(81), 2120(97), 2121(61), 2125(91,92), 2126(62), 2128(81), 2134(81), 2138(96), 2144(81), 2145(94,97), 2146(81), 2148(74), 2153(94), 2154(81), 2155(81), 2156(72), 2158(97), 2159(92), 2161(97), 2162(76), 2164(91), 2178(29), 2191(22), 2192(72), 2193(61), 2195(73,74,82), 2199(81), 2199(63), 2201(97), 2216(94,95), 2218(94,95), 2228(95), 2220(71), 2223(81), 2224(22), 2226(81), 2227(94,95), 2228(95), 2229(74), 2234(63), 2238(74), 2242(95), 2243(94,95), 2255(61), 2258(74), 2269(81), 2274(61), 2275(81), 2277(GEN), 2278(81), 2285(94,97), 2291(81), 2294(81,97), 2298(63), 2300(94), 2302(2), 2305(22), 2309(63), 2310(97), 2317(81), 2318(75), 2319(93), 2321(81), 2322(93), 2325(22), 3239(63), 2330(62), 2331(23,29), 2333(97), 2336(63), 2337(61), 2338(63), 2337(61), 2338(63), 2347(76), 2348(22), 2341(75), 2342(93), 2343(62), 2344(63), 2347(76), 2348(22), 2349(92), 2350(21,22,83), 2351(22), 2352(63), 2353(63), 2354(63), 2355(GEN), 2356(81), 2357(74).

2. THE SUMMARY OF ALL HYDROPAC MESSAGES IN FORCE AS OF 13 DEC 2001 IS GIVEN IN SEC III OF NM 52/01. WARNINGS ISSUED DURING THE SUBSEQUENT QUARTERS ARE SUMMARIZED IN NM 13/02, 26/02 AND 39/02. 3. CANCEL HYDROPAC 2038/02, 2047/02, 2308/02, 2323/02, 2335/02.
        2111(62), 2117(81), 2120(97), 2121(61), 2125(91,92), 2126(62),
     3. CANCEL HYDROPAC 2038/02, 2047/02, 2308/02, 2323/02, 2335/02.
                                                                                                                                        (141220Z DEC 2002)
2359/02 thru 2362/02. CANCELED.
2363/02(75). AUSTRALIA-SOUTHEAST COAST.
     SEISMIC SURVEY IN PROGRESS UNTIL FURTHER NOTICE BY M/V POLAR DUKE
     TOWING FOUR MILE LONG CABLE IN AREA BETWEEN 40-20S 41-40S AND
      142-40E 144-20E.
                                                                                                                                        (160201Z DEC 2002)
2364/02(93). SOUTH CHINA SEA.
     DISTRESS SIGNAL RECEIVED ON 121.5 MHZ IN 10-24.2N 107-15.3E.
      VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST
     IF POSSSIBLE. REPORTS TO PAC RCC, TELEX: 392401, PHONE: 1 808 531 1112,
     FAX: 1 808 541 2123.
                                                                                                                                        (160251Z DEC 2002)
2365/02 thru 2367/02. CANCELED.
2368/02(93). SOUTH CHINA SEA.
     1. PARTIALLY SUBMERGED CONTAINERS ADRIFT IN:
        A. 15-31.2N 112-13.2E AT 140145Z DEC.
       B. 15-45.7N 112-21.8E AT 140842Z DEC
        C. 15-07.9N 111-15.2E AT 150624Z DEC.
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2. CANCEL THIS MSG 23 DEC.

(160854Z DEC 2002)

2369/02(63). INDIA-WEST COAST. HAZARDOUS OPERATIONS.

- 1. HAZARDOUS OPERATIONS 0330Z TO 1530Z DAILY 20 AND 24 DEC IN AREA BOUND BY 09-56.7N 075-59.5E, 09-57.7N 076-14.2E, 09-40.0N 076-14.5E, 09-42.5N 076-09.5E.
- 2. CANCEL THIS MSG 241630Z DEC.

(161434Z DEC 2002)

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2370/02(GEN). GPS SATELLITE SYSTEM.

1. PRN 04 UNUSABLE 192100Z TO 200900Z DEC.

2. CANCEL THIS MSG 201000Z DEC.

(161505Z DEC 2002)

2371/02(22). SOUTH PACIFIC. TIERRA DEL FUEGO.

1. DISTRESS SIGNAL RECEIVED ON 406 MHZ FROM S/V OLE HOOP, WHITE HULL, TWO PERSONS ON BOARD, VICINITY 54-54S 076-33W AT 130316Z DEC. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MRCC BREMEN, TELEX: 41246466, PHONE: 494 2153 6870, FAX: 536 8714.

2. CANCEL HYDROPAC 2351/02.

(161539Z DEC 2002)

2372/02(97). NORTH PACIFIC.

MAN OVERBOARD FROM M/V BUM VICINITY OF TRACKLINE BETWEEN 29-35N 144-57E AT 151230Z DEC AND 30-30N 147-27E AT 160001Z DEC. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO JAPAN COAST GUARD.

(170037Z DEC 2002)

2373/02. CANCELED.

2374/02(63). INDIA-WEST COAST.

CHÀRT 63111 (9TH ED)

DGPS STATION AT AGUADA LIGHT 15-29.5N 073-46.4E OFF AIR.

(171130Z DEC 2002)

2375/02(22). CHILE. NAVTEX.

NAVTÉX STATION MARITGOBPAR OFF AIR.

(172258Z DEC 2002)

2376/02(97). NORTH PACIFIC. JAPAN.

F/V NO. 18 SHINSEI-MARU, SIX PERSONS ON BOARD, OVERDUE TO SHIOGAMA (38-19N 141-00E). LAST KNOWN POSITION 35-07N 145-45E AT 162030Z DEC. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO JAPAN COAST GUARD.

(180400Z DEC 2002)

2377/02. CANCELED.

2378/02(94). PHILIPPINE SEA. GUNNERY.

1. GUNNERY EXERCISES 240001Z TO 241000Z DEC AND 0800Z TO 1300Z DAILY 23 AND 26 DEC IN AREA BOUND BY 23-43N 122-05E, 23-00N 122-05E, 23-20N 122-38E, 23-43N 122-38E.

2. CANCEL HYDROPAC 2300/02

3. CANCEL THIS MSG 261400Z DEC.

(180838Z DEC 2002)

2379/02(22). PERU-WEST COAST.

CHÀRT 22130 (2ND ED).

DANGEROUS WRECK VICINITY 07-56S 079-25W.

(181434Z DEC 2002)

2380/02(81,97). NORTH PACIFIC.

DISTRESS SIGNAL RECEIVED ON 121.5 MHZ VICINITY 24-03-54N 151-04-08E AT 181333Z DEC VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO JAPAN COAST GUARD.

(181444Z DEC 2002)

2381/02(75). AUSTRALIA-EAST COAST.

CHART 75261 (6TH ED).

SYDNEY DPGS STATION 33-59S 150-59E INOPERATIVE.

(181523Z DEC 2002)

2382/02. CANCELED.

2383/02(75). AUSTRALIA-SOUTH COAST.

CHART 75160 (6TH ED).

CAPE NORTHÙMBERLAND LIGHT 38-03S 140-40E UNLIT.

(181744Z DEC 2002)

2384/02 thru 2386/02. CANCELED.

2387/02(21,22,83). ISLES MARQUISES TO PANAMA.
40 FOOT S/V MARATEA, TWO PERSONS ON BOARD, UNREPORTED ISLES MARQUISES TO PANAMA. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO RCC ALAMEDA, TELEX: 230 172 343, PHONE: 510 437 3701.

(191035Z DEC 2002)

MARAD ADVISORIES

MARAD ADVISORIES rapidly disseminate information on government policy, danger and safety issues pertaining to vessel operations and other timely maritime matters. They are periodically issued by the U.S. Maritime Administration (MARAD) to vessel masters, operators, and other U.S. maritime interests.

The text of all in-force MARAD ADVISORIES may be obtained by accessing the NIMA Maritime Safety Information website (http://164.214.12.145/warn/warn_j_query.html), by referring to Section I (paragraph 50) of this Notice for those in-force as of 19 December 2002, or by contacting the Maritime Administration Office of Ship Operations, Code MAR-613, Room 2123, 400 Seventh Street S.W., Washington DC 20590, Telephone (202) 366-5735, FAX (202) 366-3954, TLX II 710-822-9426 (MARAD DOT WSH).

MARAD ADVISORIES in force 19 December 2002: 00-7, 01-1, 01-5, 01-7, 02-2, 02-5 and 02-7.

SPECIAL WARNINGS

SPECIAL WARNINGS, primarily intended to announce official government proclamations affecting shipping, are broadcast as needed. They are numbered consecutively and further promulgated in the Notice to Mariners.

The text of all in-force SPECIAL WARNINGS may be obtained by accessing the NIMA Maritime Safety Information website (http://164.214.12.145/warn/warn_j_query.html) or by referring to Section I (paragraph 7) of this Notice for those in-force as of 19 December 2002.

SPECIAL WARNINGS in force 19 December 2002: 1, 29, 77, 81, 82, 89, 92, 95, 107, 108, 111, 113, 114, 115, 116, 117, 118, 119 and 120.

III-1.14

SECTION III NM 1/03

MARINE INFORMATION

NATIONAL OCEAN SERVICE OFFICES

Information concerning National Ocean Service (NOS) charts and related publications can be obtained by addressing;

Director, Coast Survey, N/CS 51 National Ocean Service, NOAA 1315 East-West Highway Silver Spring, MD 20910-2729 Telephone: 301-713-2729

Information concerning the sale of NOS and/or NIMA products can be obtained by addressing:

FAA Distribution Division, AVN-530 National Aeronautical Charting Office

Riverdale, MD 20737-1199

Telephone: 1-800-638-8972 (within the U.S. only); 301-436-8301

Fax: 301-436-6829

E-Mail address: 9-AMC-Chartsales@faa.gov

Website: http://naco.faa.gov/

U.S. ARMY CORPS OF ENGINEERS

OFFICE OF THE CHIEF OF ENGINEERS, USACE ATTN.: CECW-OD 441 G. STREET, N.W. WASHINGTON, D.C. 20314-1000 TELEPHONE: (202) 761-4665

DISTRICT OFFICES (COASTAL)

New England, MA 01742-2751 Detroit, MI 48226-2575 Buffalo, NY 14207-3199 Chicago, IL 60606-7206 New York, NY 10278-0090 Philadelphia, PA 19107-3390 Baltimore, MD 21203-1715 Norfolk, VA 23510-1096 Wilmington, NC 28402-0919 Charleston, SC 29402-0919 Savannah, GA 31402-0889 Jacksonville, FL 32232-0019 Mobile, AL 36628-0001 New Orleans, LA 708118-0267 Galveston, TX 77553-1229 Anchorage, AK 99506-0898 Los Angeles, CA 90053-2325 San Francisco, CA 94105-1905 Portland, OR 97204-3495 Seattle, WA 98134-2385

Sacramento, CA 95814-2922

696 Virginia Road, Concord, Tel. 978-318-8321 Patrick McNamara Bldg., 477 Michigan Ave., Tel. 313-226-6794 1776 Niagara St., Tel. 716-879-4297 111 N. Canal St., Tel. 312-353-6400 26 Federal Plaza. Tel. 212-264-9094 The Wanamaker Bldg., 100 Penn Square East, Tel. 215-656-6721 10 S. Howard St., Tel. 410-962-4646 803 Front St., Tel. 757-441-7649 69 Darlington Ave., Tel 910-251-4814 Federal Bldg., 334 Meeting St., Tel. 843-329-8056 100 W. Oglethorpe Ave., Tel. 912-652-5341 Federal Bldg., 400 West Bay St., Tel. 904-232-3765 109 St. Joseph St., Tel. 334-690-2576 7400 Leake Ave., Tel. 504-862-2328 2000 Ft. Point Rd., Tel. 409-766-3966 Bldg. 21-700, Elmendorf Air Force Base, Tel. 907-753-2753 911 Wilshire Blvd., Tel. 213-452-3349 333 Market St., Room 923, Tel. 415-977-8444 Robert Duncan Plaza, 333 S.W. 1st Avenue, Tel. 503-808-4300 4735 East Marginal Way South, Tel. 206-764-3431 1325 J St., Tel. 916-557-7701

NM 1/03 SECTION III

U.S. ARMY CORP OF ENGINEERS DIVISION OFFICES (COASTAL)

North Atlantic Building 301, Tel. 718-491-8707

Fort Hamilton Military Community Brooklyn, New York 11252-6700

South Atlantic 60 Forsyth Street S.W., Tel. 404-562-6740

Atlanta, Georgia 30303-8801

Mississippi Valley 1400 Walnut Street, Tel. 601-634-5868

Vicksburg, Mississippi 39180-0080

Southwestern 1100 Commerce Street, Tel 214-767-2429

Dallas, Texas 75242-0216

South Pacific 333 Market Street, Room 1101, Tel. 415-977-8031

San Francisco, California 94105-2195

Northwestern 220 Northwest 8th Street, Tel. 503-808-3880

Portland, Oregon 97208-2870

Great Lakes and Ohio River 550 Main Street, Tel. 513-684-3057

Cincinnati, Ohio 45202-2215

Pacific Ocean Building 230, Tel. 808-438-8880

Ft. Shafter, Hawaii 96858-5440

UNITED STATES COAST GUARD DISTRICT OFFICES

Commander, 1st Coast Guard District, 408 Atlantic Ave., Boston, MA 02110-3350.

Phone, Day 617-223-8338, Night 617-223-8558.

Commander, 5th Coast Guard District, Federal Bldg., 431 Crawford St., Portsmouth, VA 23704-5004.

Phone, Day 804-398-6486, Night 804-398-6231.

Commander 7th Coast Guard District, Brickell Plaza Federal Bldg., 909 S.E. 1st Ave., Miami, FL 33131-3050.

Phone, Day 305-536-5621, Night 305-536-5611.

Commander, 8th Coast Guard District, Hale Boggs Federal Bldg., 501 Magazine St., New Orleans, LA 70130-3396.

Phone, Day 504-589-6277, Night 504-589-6225.

Commander, 9th Coast Guard District, 1240 East 9th St., Cleveland, OH 44199-2060.

Phone, Day 216-902-6060, Night 216-902-6117.

Commander, 11th Coast Guard District, Coast Guard Island, Building 50-6, Alameda, CA 94501-5100.

Phone, Day 510-437-2976, Night 510-437-3700.

Commander, 13th Coast Guard District, Federal Building, 915 Second Ave., Seattle, WA 98174-1067.

Phone, Day 206-220-7270, Night 206-220-7004.

Commander, 14th Coast Guard District, Prince Kalanianaole Federal Bldg., Room 9139, 300 Ala Moana Blvd., Honolulu, HI 96580-4982.

Phone, Day 808-541-2315, Night 808-541-2500.

Commander, 17th Coast Guard District, P.O. Box 25517, Juneau, AK 99802-5517.

Phone, Day 907-463-2272, Night 907-463-2004.

NEW EDITION OF COAST PILOT

U.S. Coast Pilot 7, Pacific Coast, California, Oregon, Washington and Hawaii, Thirty-Forth Edition, 2002, is ready for issue and may be obtained from:

Federal Aviation Administration National Aeronautical Charting Office Distribution Division, AVN-530 6303 Ivy Lane, Suite 400 Greenbelt, MD 20770-6325

and authorized agents of the National Ocean Service. Price \$26.00.

The 2002 Edition cancels the preceding 2001 Edition.

All corrections to the previous edition issued in Notice to Mariners are incorporated in this edition.

Mariners are encouraged to use the convenient "RECORD OF CHANGES" form on Page V of this book. All Coast Pilot changes published in the U.S. Coast Guard Local Notice to Mariners, National Imagery and Mapping Agency Notice to Mariners, and on the Internet at http://critcorr.ncd.noaa.gov/ are serially numbered (i.e., Change No. 1, Change No. 2, etc.) to assist you in tracking the changes.

III-2.2

SECTION III NM 1/03

NEW EDITION OF NIMA/DLA HYDROGRAPHIC CATALOG

The twelfth edition of the National Imagery and Mapping Agency Catalog, Part 2-Volume I, Hydrographic Products, Nautical Charts, and Publications, April 2002, is now available. The NIMA Catalog volume is corrected through NM 8/02. A list of "Cumulative Catalog Corrections for Volume I (12th Ed.) from Notice to Mariners 9/02 through 1/03" is located in Section II.

DoD, Coast Guard and other Executive Branch Agencies on subscription for this NIMA Catalog volume, who have not received their copies, should contact DLA Customer Support at 1-800-826-0342.

The twelfth edition of the NIMA Catalog, Part 2-Volume I, Hydrographic Products, is available to civil users from the Government Printing Office. The National Ocean Service produces nine separate Regional Catalogs which are produced on a 2-year-cycle and available free from the FAA Distribution Division. A free quarterly "NIMA Nautical Charts and Publications Dates of Latest Editions" bulletin (NOS Stock Number DNDOLE) is also available from FAA.

Requests for NIMA Catalog, Part 2-Volume I, Hydrographic Products may be directed to:

GPO, Superintendent of Documents **Publication Order Branch** Mail Stop SSOP Washington, D.C. 20401 Tel: 202-512-1800; Fax 202-512-2250; or

Online: http://www.bookstore.gpo.gov

Requests for NOS catalogs and bulletins may be directed to:

FAA Distribution Division, AVN-530 National Aeronautical Charting Office Riverdale, MD 20737-1199 Tel: 301-436-8301 or 1-800-638-8972

Fax: 301-436-6829

or Online: http://naco.faa.gov

MARINE INFORMATION REPORT AND SUGGESTION SHEET INSTRUCTIONS

We value your suggestions to improve our products. The Marine Information Report and Suggestion Sheet is provided for users to submit corrective information. Please be complete and accurate in your description/suggestion and include the information as detailed below:

Observer: name(s) of person(s) making observation and rank, rate or title.

Ship/Organization: name of vessel or organization.

Address: complete mailing address. Also include telephone number, fax, and/or e-mail address, if available, in case clarification is required.

Date of Observation: day, month and year at which the observation was made.

Time of Observation: local time at which the observation was made.

Latitude/Longitude: exact position of the observation expressed as accurately as possible.

Datum: horizontal datum to which the observed position is referred (e.g. WGS, NAD83, local foreign datum, etc.).

Navigation System: method used to determine the position of the observation (e.g. radar, GPS, Loran, etc.).

Include details about the equipment used, if deemed pertinent.

Verified by Navigator: indicate whether observation was verified by navigator.

Product(s) Affected: product number(s) and/or name(s) to which the observation applies (e.g. Chart 62400, Sailing Directions Pub. 127, etc.).

Edition: edition number and/or year of affected product.

Latest correction applied: the latest Notice to Mariners to which your copy of affected product has been corrected.

Sounding sensor or method used: equipment or method used to collect soundings. When reporting soundings, please provide an annotated echogram, if available, for verification.

Soundings corrected for draft: indicate whether soundings have been corrected for vessel's draft. If not, please include observed draft along with the details of information reported.

Details of Information Reported: use this space to provide details of the observation/suggestion. When referring to a charted feature, please describe it exactly as it appears on the chart. When referring to a publication, please indicate page number(s) and line number(s) or station number(s) as applicable. Use additional sheets as necessary and include diagrams, photocopies of the product(s) involved and/or photographs to describe observations in greater detail. If possible, include the designation, point of contact, telephone number, fax number and/or e-mail address of the local port authority to enable NIMA to update our records and obtain additional or later information.

User Feedback: use this space to provide feedback and suggestions for improving NIMA's products and services.

Please detach, fold and mail the pre-addressed form and include any other relevant material or supporting information.

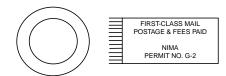
Reports which present an immediate hazard to navigation should be sent to the nearest NAVAREA Coordinator via coast radio stations. In general, these hazards would include major aids to navigation anomalies, discovery of obstructions or shoals with depths of less than 30 meters, floating dangers to shipping, and any situation deemed critical to safety of life at sea. For further information consult Notice to Mariners No. 1, paragraph 44 (Worldwide Navigational Warnings Service).

Due to the large volume of information received, NIMA cannot acknowledge receipt of every report. Some reports containing useful data are filed for use in the compilation of the next edition of the affected product. Others confirm or clarify previously reported information. Echogram traces are digitized and become part of NIMA's Bathymetric Data Base. Acknowledgment is made by inclusion in the Observer's List of the Notice to Mariners (page ii), or in some cases by letter from the Agency involved.

For additional information about various Hydrographic Reports, consult The American Practical Navigator (Chapter 30).

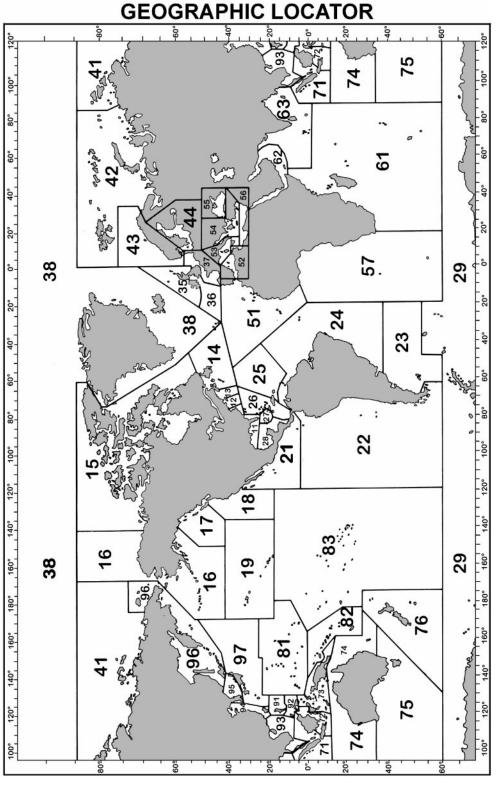
MARINE INFORMATION REPORT AND SUGGESTION SHEET

Observer	erverShip/Organization							
Address								
Email address								
Date of Observation	Observation Time of Observation (Local)							
Latitude	Longitude	Datu	m					
Navigation System		Verified by Navigator:	Yes	_ No				
Product(s) Affected		Edition						
Latest correction applied: N.M								
Sounding sensor or method used		Sounding(s) corrected for	or draft: Yes	No				
,								
User Feedback (continue on additional	al sheets as necessar	y)						





MARITIME SAFETY INFORMATION DIVISION ST D44 NATIONAL IMAGERY AND MAPPING AGENCY 4600 SANGAMORE ROAD BETHESDA MD 20816-5003



into the numbered Subregions in the above graphic. The first two digits of all five-digit chart numbers indicate the geographic subregion to which the chart pertains. Users can locate corrections in this Notice for charts of their immediate interest by determining the two-digit Subregion number of the pertinent geographic area, and then turning to the page or pages that list the chart numbers beginning with those two For chart numbering purposes, the world is divided into nine regions, each corresponding to the geographic limits of one of the nine regions in the NIMA Catalog of Maps, Charts, and Related Products, Part 2-Hydrographic Products, Volume 1. Each Region is further subdivided

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